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Pepperdine University  
Graduate School of Education and Psychology

A QUANTITATIVE STUDY MEASURING THE RELATIONSHIP BETWEEN  
MINDSET AND PSYCHOLOGICAL WELL-BEING AMONG HIGH ACHIEVING  
COLLEGE-BOUND STUDENTS ATTENDING PRIVATE CHRISTIAN HIGH SCHOOLS IN  
ORANGE COUNTY, CALIFORNIA

A dissertation submitted in partial satisfaction  
of the requirements for the degree of  
Doctor of Education in Organizational Leadership

by

Leslie A. Radmacher-Smith

October, 2018

James Dellaneve, Ed.D. – Dissertation Chairperson

This dissertation, written by

Leslie A. Radmacher-Smith

Under the guidance of a Faculty Committee and approved by its members, has been submitted to and accepted by the Graduate Faculty in partial fulfillment of the requirements for the degree of

DOCTOR OF EDUCATION

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## DEDICATION

This dissertation is dedicated to my husband, Philip Taylor Smith, the love of my life.

(April 8, 1965 – July 30, 2017)

Phil, you will forever remain my inspiration. On July 30, 2017, the day you were called Home to glory, we talked about this dissertation. With love and genuine interest, you asked details about the topic, what the dissertation might mean, and how it might lead to a new chapter in our lives. At the time, I had no way of knowing how important this dissertation would become in helping me process and survive the profound loss I feel every day without you. Your loving supportive words of encouragement, your great pride in my research and life's passion, and your desire and excitement to see me graduate have fueled me and my drive to fight for clarity and focus so that I might return to our alma mater on May 19, 2018 to graduate in your honor as Dr. Leslie Radmacher-Smith.

Every day of my life you made sure that I knew how much you loved me - you protected me – you honored me – you believed in me. You made me laugh – you listened to me – you understood me – you prayed for me... you fought for me. Phil, you are the purest example of how a man truly loves his wife, cares for his family, and brings joy to others. No matter where your work took you all over the world, I never wondered or worried where your heart was - I always knew it belonged to me and our children.

Phil, you are a brilliant man of deep faith, strong character, and clever wit. Loving you and being loved by you is a treasured gift from God that I will always cherish. Remembering how you lived life to the fullest gives me courage and strength to face each day without you. The way you lit up a room continues to inspire me. Remembering how you reached out to people and



made every effort to connect with them wherever you were, motivates me to step out of my comfort zone and do the same. Connectedness... that is you – that is what you created and sustained.

Phil, your warm smile, kind eyes, silly antics, and crazy sense of humor made every day an adventure of a lifetime. The lives you touched and the legacy you leave lives on through everyone who had the honor and privilege of knowing you. I promise you that until I am reunited with you in Heaven, I will live each day loving you and proudly speaking your name, and I will make sure that you are remembered always.

And so, Phil, this dissertation is for you... although you were not here to proof and edit my final work, as you have done for so many years, I have felt you every step of the way, and I know you are very proud that I am continuing the work that you so believed in and supported so passionately. I miss you desperately, Phil... you are always with me, and I will forever cherish every moment I spent with you.

*Finally, brothers, whatever is true, whatever is honorable, whatever is just, whatever is pure, whatever is lovely, whatever is commendable, if there is any excellence, if there is anything worthy of praise, think about these things.*

*Philippians 4:8*

## ACKNOWLEDGEMENTS

In August 2015, I returned to Pepperdine University to build on the undergraduate foundation established at the Malibu campus from January 1987 through December 1989 to research what appeared to be an unfolding mental health crisis among adolescents and to learn how to effectively lead change. I am grateful that my studies have served both of those objectives and so much more. Over the course of the past three years, I have rediscovered my purpose as an educator, grown as a leader, and emerged as a change agent, but perhaps most importantly, I have been transformed as a person. There was no way I could have known that my doctoral journey would equip me to face and survive losing my best friend, the love of my life – the man I met and fell in love with at Pepperdine University 30 years prior. I am profoundly grateful for the inspiring, supportive, and caring people who have taught me, supported me, encouraged me, and walked with me every step of the way; I have experienced God’s love through each of them.

This dissertation is a culmination of my life experiences as both an educator and a proud mom. My children, Danny, Angie, and Alyssa (and her husband, Chris) continue to give me purpose and meaning; they inspire and challenge me to be the best version of me possible, and their belief in me and unwavering love and support provide me with strength, conviction, and resolve. I am certain that I have learned more from them than they will ever learn from me, and I know that God will use them to glorify Him, serve others, and make a meaningful difference in this world.

This dissertation is a testament to the strength and fortitude of my mom and dad as loving, strong, nurturing parents. In addition to making it possible for me to benefit from all that is Pepperdine, they have taught me the value of hard work, commitment, perseverance, honor,

and integrity. I am grateful for their love and support throughout my life – all that the doctoral title means and communicates began with them and reflects their love, support, and belief in me; this accomplishment would not be possible if it were not for them.

This dissertation is the result of a call to action inspired by the purpose and people of Orange Lutheran High School. In January of 2014, I began to question my role as an educator. Somehow, over the course of a decade, the high school experience became less about people, purpose, and the process of learning and more about policies, performance measures, and profiles. Instead of serving as a champion for teaching and learning, I found the role of educator as that of a publicist or agent trying to perfect a pristine profile that would garner admission to a college recognized on some publication's list of what it determines as "best." Saddened, disillusioned, and concerned about the health and well-being of adolescents, I determined that I could either lament the state of our educational system, or I could return to Pepperdine to learn how to effect change. The doctoral program in Organizational Leadership accomplished exactly that, and as a result, we at Orange Lutheran are *redefining the high school experience* to one that prepares strong, healthy, caring people who understand that their identity is in Christ alone and who are strengthened and prepared for a Christian life of purpose, service through vocation, and leadership in a global society.

I am profoundly grateful for the love, support, and inspiration of my friends and families ... and in all things, the glory goes to God in the name of our Risen Savior, Jesus Christ.

## VITA

### **EXPERIENCE**

**Orange Lutheran High School, Orange, CA** **07/2007 – Present**  
Head of School (July 2016 – Present)  
Principal (July 2008 – June 2016)  
Vice Principal (July 2007 – June 2008)  
Grades 9-12 College Preparatory High School (Enrollment 1370+ Students)

**Red Hill Lutheran School, Tustin, CA** **07/2000 – 06/2007**  
Principal, Pre-School – Grade 8 School (Enrollment 350+ Students)

### **EDUCATION**

**Pepperdine University, Irvine, CA** **08/2015 – 05/2018**  
Doctorate of Education in Organizational Leadership  
GPA: 4.0; Passed Comprehensive Final Exam with Honors

**La Sierra University, Riverside, CA** **09/1991 - 05/1993**  
Masters of Arts in Education: Curriculum and Instruction, K-12  
California Multiple Subject Teaching Credential  
GPA: 4.0

**Pepperdine University, Malibu, CA** **01/1987 – 12/1989**  
Bachelor of Arts, Sociology with an Emphasis in Religion  
GPA: 3.8; Graduated Summa Cum Laude

### **ACCOMPLISHMENTS**

#### **Honors & Awards**

**Growing Leaders Award, National Leadership Forum** **06/2016**  
Recognized for work in cultivating a leadership culture on campus  
<https://growingleaders.com/blog/re-defining-high-school-experience>

**Administrator of the Year** **10/2013**  
Pacific Southwest District of the Lutheran Church-Missouri Synod  
Recognized for strong Christian witness, servant heart, and exemplary leadership

#### **Publications**

“Redefining the High School Experience” – Article  
ALSS Journal, April 25, 2017  
<https://www.alss.org/alss-journal-spring-2017/2017/04/25/redefining-the-high-school-experience/>

“Leveraging the College Admissions Process to Benefit Students Through International Service Learning” - Article  
International Center for Global Leadership, June 2016  
<http://www.icglconferences.com/articles/college-admissions-service-learning-college-admissions-service-learning/>

## ABSTRACT

The culture of American education that is largely predicated on acquiring the proverbial golden ticket for entrance to an esteemed college has produced the most anxious, stressed, and sleep-deprived generation ever (Jones & Jones, 2006). As students strive to graduate from high school with perfected profiles that impress and garner admission to these colleges, high school success and educational practices are typically focused on achievement as reflected by test scores, grades, college acceptance results, and scholarship offers (Zins, Bloodworth, Weissberg, & Walberg, 2004). As a result, instead of prioritizing process-oriented learning that is associated with a growth mindset, achievement performance measures focus on extrinsic rewards often linked with a fixed mindset such as grades, scores, rankings, and awards (Dweck, 2006). As students pursue accolades and marks of achievement, various aspects of learning are supplanted including risk, struggle, persistence, resilience, and growth, often at the expense of character, values, integrity, and psychological well-being (Guang, Hanchao, & Kaiping, 2016).

The study revealed the relationship between mindset and psychological well-being for a sample of 123 high achieving, college-bound senior students attending private, college-preparatory Christian high schools in Orange County, California. It also reviews the factors related to the college admission process that affects and shapes the life experiences of these students. Quantitative data reveal the relationships and themes related to mindset and psychological well-being and offer insight and strategies that may promote positive, healthier outcomes for college-bound students as well as topics for future research. This study adds to the current body of knowledge related to implicit theories of intelligence, mindset, adolescent psychological well-being, and social emotional learning.

Furthermore, this study is relevant because it reveals the underlying factors related to the emotional needs of today's adolescents, providing teachers, counselors, and school administrators with important information that may influence vision, goals, policies, and instruction. The results of this study support the need to reevaluate the effects of the college admission process on adolescent mindset and psychological well-being.

## Chapter 1: The Problem

### Introduction

Wanting the best for their children, millions of parents send their sons and daughters to school each day with the hope and promise that a college education will improve the quality of their lives and lead to a bright and prosperous future. As a result, parents and schools collaborate to help students gain admission to top colleges across the country, but only about half who attend actually graduate within six years, if ever (Lythcott-Haims, 2016; Dunder, Wakhungu, Yuan, Nathan, & Hwang, 2015). Is it possible that the very efforts that have helped students gain college admission have actually hindered their ability to graduate and thrive in life beyond high school? Might those very efforts contribute to the stress and anxiety that exist in epidemic proportion among this age group (Jones & Ginsberg, 2006; Lythcott-Haims, 2016)?

The intense focus on admission to four-year colleges has yielded a record number of applications and has significantly impacted the health and psychological well-being of American adolescents (Jones & Ginsburg, 2006; Redding, 2013). In an effort to stand out and impress college admission counselors, high school students are burdened with the daunting task of building an impressive, robust college resume (Abeles, 2016; Lythcott-Haims, 2016). The process has influenced the focus of American education and has negatively affected relationships and priorities leaving many consumed by overwhelming stress and anxiety associated with excessive achievement pressure (Abeles, 2016; Deresiewicz, 2014; Levine, 2008; Pope, Brown, & Miles, 2015). In addition, many students are not equipped and are ill-prepared to effectively manage the various demands of academic requirements, extracurricular demands, and social activities, and mental health disorders are on the rise in both number and severity on high school and college campuses (Cleary, Walter, & Jackson, 2011).

## **Background of the Problem**

The highly competitive college admission process in the United States frames the profile that high school students aspire to achieve and largely affects the way they are parented and educated. Many families go to extreme lengths to secure any kind of advantage in the competitive college admission world, and children who attend schools in affluent areas have greater access to such advantages. From a young age, children are groomed to be high-achievers with the express purpose of becoming attractive candidates to prestigious, highly selective colleges and universities. Many parents begin investing in their children's college credentials starting with what is perceived to be the best preschool, and their pursuit continues with the best schools, teachers, tutors, coaches, and private college consultants (Baum & McPherson, 2011; Jump, 2015). The competitive college admission process dominates the lives of American teens, promotes college-preparatory private schools, and generates a lucrative industry of test prep and private college counseling (Abeles, 2016; Lythcott-Haims, 2016; Redding, 2013). During 2009, test prep alone was estimated to bring in four billion dollars of revenue, and the cost of hiring a private college consultant can add up to a staggering \$40,000 per student (Redding, 2013).

The pressure to perform, compete, and excel for the purpose of building an impressive profile that reflects the ideal college candidate has had a significant impact on many high school students in the United States (Abeles, 2016; Deresiewicz, 2014; Levine, 2008; Pope et al., 2015). An extreme focus on exceptional grades in the most rigorous courses possible along with impressive accomplishments on an extensive list of extracurricular activities has left many students exhausted, discouraged, and stressed with little time to identify strengths, discover and develop passions, and cultivate real-world life skills (Abeles, 2016). Increased achievement pressure related to the college admission process has significantly impacted student health and



psychological well-being and has produced the most anxious, stressed, and sleep-deprived generation ever (Jones & Ginsberg, 2006).

The American Psychological Association's 2013 Stress in America survey revealed that adolescents ranging from 13-17 years old are experiencing stress levels higher than they consider healthy, and this age group rated their stress level higher than any other population. More than 33% of teens report stress-related symptoms including anger and irritability or feeling tired, anxious, or nervous, and more than 25% report feeling overwhelmed, neglecting responsibilities, having negative thoughts, and changing sleep habits (APA, 2013). The top source of stress for teens is school followed by the pressure of getting into a good college or deciding what to do after high school (APA, 2016).

Suicide among Americans, ages 15 to 24 years, has been increasing since 2007, and in recent years, suicide "clusters," defined as multiple deaths in close succession and proximity, have become increasingly more common on college campuses (Elmore, 2015; Rosin, 2015). In 2014, the University of Pennsylvania had six suicides; during the 2009-2010 school year, Cornell experienced six suicides (Jarvis, 2015); in 2010, Tulane lost four students to suicide, and in 2015, three students at Appalachian State committed suicide (Elmore, 2015). Students are arriving to college with a resume that highlights the courses they completed and the extracurricular activities they championed, but they are ill-prepared and ill-equipped to navigate real-world challenges.

The manner in which students view achievement is directly related to their mindset, which refers to a mental attitude or disposition that predetermines how a person responds to and interprets situations, and it affects the way students perceive their academic world (Zeng, Hou, & Peng, 2016). The effects of an intense focus on achievement may foster a fixed mindset that

views intellectual ability in terms of a fixed, unchangeable amount, as opposed to a growth mindset that views intellectual ability as something that can grow and develop over time (Yeager & Dweck, 2012). Whereas students with a fixed mindset view their academic life in terms of a performance measurement regarding their ability, intellect, struggles, and success, those with a growth mindset view their academic life in terms of process-oriented growth, learning, and development. In addition, whereas students with a fixed mindset may interpret setbacks and challenges as failures, “growth mindset students interpret setbacks, challenges, and effort as effective approaches to improving their ability, intelligence, and experience” (Zeng et al., 2016, p. 2).

High school success and related educational practices are typically focused on academics and measured by achievement as reflected by test scores, grade point averages, college acceptance results, and scholarship offers (Zins et al., 2004). As students strive to graduate from high school with perfected profiles that impress and garner admission to elite colleges, the primary focus on academic learning and achievement has increased the pressure to perform, compete, and excel, leaving many students exhausted, discouraged, anxious, and stressed with little time to identify strengths, discover passions, and cultivate real-world life skills (Abeles, 2016).

Instead of prioritizing process-oriented learning that is associated with a growth mindset, achievement performance measures focus on extrinsic rewards often linked with a fixed mindset such as grades, scores, rankings, and awards (Dweck, 2006). As students pursue accolades and marks of achievement, various aspects of learning are supplanted including risk, struggle, persistence, resilience, and growth, often at the expense of character, values, integrity, and psychological well-being (Guang et al., 2016). Being recognized as the best, standing out above

the rest, and winning at all cost accelerate a competitive, self-centered culture, as students become focused on themselves at the expense of others (Konrath et al., 2011; McCombs, 2004). As a result, it is not surprising that personal success, including individual achievement, happiness, and hard work, are valued by American youth above fairness and concern for others (Weissbourd, Jones, Ross, Kahn, & Mark, 2014).

When caring for others and fairness are not prioritized, selfishness, indifference, and a lack of empathy result affecting the development of key foundational relationship skills. In addition, adolescents are at a greater risk of being disrespectful, cruel, and dishonest. According to the National Center for Educational Statistics (2016), at 20.8%, more than one out of every five students report being bullied. In addition, cheating incidents have increased, as 75% of high school students admit to copying another's homework, and 50% admit to cheating on a test (Weissbourd et al., 2014). Furthermore, according to a study conducted by Pew Research Center in 2006, 81% of people, ages 18-25 years old, indicated that getting rich was among their most important goals, whereas only 30% indicated that helping others who are in need of help is an important goal among their generation (Konrath, O'Brien, & Hsing, 2011).

Achievement reflected by grades, standardized test scores including the ACT or SAT, involvement in extracurricular activities, and enrollment in honors, Advanced Placement (AP), and International Baccalaureate courses are all important components of the college admission process. Coupled with the stressful nature and uncertainty of applying to college, the significant amount of time and the high degree of effort that are required by high school students to perfect their college profile provide a rich opportunity to study the relationship between mindset and the psychological well-being among high achieving students.

## **Statement of the Problem**

Studies show that mindset has an effect on how students approach and respond to challenges and setbacks (Dweck, 2006, 2009). In addition, research reflects that stress and anxiety among adolescents have grown to epidemic proportions and are significantly affecting their health and psychological well-being (APA, 2013). Referred to as credentialing theory, the emphasis on performance for the express purpose of building a robust resume to stand out in the college admission process can lead to excessive achievement pressure, and it may affect mindset and adolescent psychological well-being.

## **Purpose and Importance of Study**

The purpose of this quantitative study is to determine the relationship between mindset and psychological well-being among high achieving, college-bound senior students attending private, college-preparatory Christian high schools in Orange County, California. Further, this study is a review of the factors related to applying to college that affect and shape the life experience of these students. Quantitative data is explored to discover relationships and themes related to mindset and psychological well-being and to provide alternative strategies that promote positive, healthier outcomes particularly as they relates to the college admission process.

Although there have been studies that suggest a relationship between mindset and performance as well as fixed mindset and heightened levels of test anxiety (Claro, Paunesku & Dweck, 2016; Trudeau, 2009), research is needed to determine how mindset affects psychological well-being among high achieving college-bound adolescents. Research suggests that mindset can change as a result of awareness and instruction, and students can learn how to adopt and develop a growth mindset (Blackwell, Trzesniewski, & Dweck, 2007). Therefore, this

study is relevant because if a positive relationship between growth mindset and psychological well-being exists, it may be possible to decrease unhealthy levels of anxiety and stress among adolescents and promote positive mental health and well-being.

Furthermore, this study is relevant because it reveals the underlying factors related to the emotional needs of today's adolescents, providing teachers, counselors, and school administrators with important information that may influence vision, goals, policies, and instruction. It also identifies the need to evaluate and influence current college admission policies and practices to foster psychological well-being. The information obtained from this study was analyzed to generate recommendations for future studies on college-bound high school students and the college admission process because colleges and universities are powerfully positioned to influence the values, beliefs, and actions of students, parents, and the organizations for which they exist to serve. Additionally, this study will assist society, policymakers, and university leaders in determining criteria and processes related to the college admission process.

### **Research Questions**

The following research questions guided this study:

1. To what extent, if any, does a relationship exist between mindset and psychological well-being?
2. Do students with a growth mindset have higher well-being compared to students with a fixed mindset after controlling for demographic factors?

Other variables within this study include students' gender, race, ethnicity, parent's level of education, high school financial aid, weighted cumulative grade point average, highest ACT and/or SAT scores, and number of college applications submitted. Quantitative methods are an appropriate approach for this study because the variables of interest can be determined and are

measurable; mindset is the independent variable and well-being is the dependent variable. A non-experimental survey design capturing data via an electronic survey provided information to address the research questions.

### **Theoretical Framework**

The theoretical framework for this study is rooted in Carol Dweck's research on mindset and on the philosophy of positive psychology as postulated by Martin Seligman. Rather than viewing wellness terms of an absence of pathology or mental illness, Seligman emphasizes the scientific study of optimal human functioning, strength, and resilience (Weller-Clarke, 2006). This philosophy asserts that optimal health and longevity are not the necessarily the result of the removal and control of problematic life situations but rather the focus is on human characteristics and their environments (Weller-Clarke, 2006).

Instead of relying on traditional practices for assessing children and adolescents such as self-concept scales and informal assessments that rely on objectively scored models that focus on deficits and maladaptive behaviors that affect performance, the instrument used to measure well-being in this study is the Child and Adolescent Wellness Scale, referred to as the CAWS (Copeland, Nelson, & Bardos, 2017). Ellis P. Copeland and R. Brett Nelson designed the CAWS to reveal adaptive qualities for adolescents by identifying and assessing the strengths, competencies, and capacities across the following ten domains for positive healthy outcomes: adaptability, connectedness, conscientiousness, emotional self-regulation, empathy, initiative, mindfulness, optimism, self-efficacy, and social competence (Weller-Clarke, 2006).

Carol Dweck's research focuses on patterns of behavior that may be caused by personal views referred to as mindset. Two types of behavior patterns that were identified and researched extensively by Dweck include the helpless response and mastery-oriented response patterns

(Diener & Dweck, 1978, 1980; Dweck, 1975, 1976; Dweck & Reppucci, 1973). Whereas the helpless response pattern was characterized by avoidance of challenges and deteriorating performance when facing obstacles, the mastery-oriented response was characterized by embracing challenges and also persistence and resiliency when faced with obstacles (Dweck & Leggett, 1988). These response patterns were found to be correlated with a person's orientation of goals rather than their skills and abilities. Those who were focused primarily on demonstrating competency to others exhibited a helpless response pattern, while those with a mastery-oriented response pattern focused on goals that were primarily directed toward learning and increasing competency (Dweck & Leggett, 1988; Elliott & Dweck, 1988).

Dweck's research subsequently led to a study on the implicit theories of intelligence referred to as fixed and growth mindset. Those with a fixed mindset believe that their intellect and abilities are fixed and unable to grow, and they typically possess performance-oriented goals whereby learning focuses on extrinsic rewards such as grades, scores, rankings, and awards. Academic life is viewed in terms of various performance measurements regarding ability, intellect, struggles, and success; challenges and setbacks are interpreted as failures. As a result, students with a fixed mindset are focused on validation and are highly fearful of making a mistake that might blemish their record or profile. They value achievement status and appearing intelligent over learning and developing knowledge, and they will often intentionally reject challenging situations to avoid the risk of making a mistake or losing status or stature. In addition, fear of failure or being perceived as inferior or inadequate often influence students with a fixed mindset to conceal their weaknesses, even at times resorting to deceit and cheating (Dweck, 2009). These students are sensitive to being perceived as wrong, and they spend a significant amount of time trying to prove themselves to others. Believing that their value is in

their ability to perform, setbacks, failure, and criticism adversely affect their confidence and self-esteem often resulting in increased stress and anxiety. Feelings of shame, hopelessness, and depression may result and can lead to substance abuse, self-injury, and other risk-taking behaviors (Conner, Miles, & Pope, 2014; Madjar, Voltsis & Weinstock, 2013; Redding, 2013).

In contrast to those with a fixed mindset, students with a growth mindset believe that their intellect and abilities can grow through study, learning, effort, and persistence, and they typically possess learning-oriented goals (Elliott & Dweck, 1988). They are intrinsically motivated to learn, and they often seek opportunities for growth to strengthen weaknesses through hard work, effort, and skill development. In addition, students with a growth mindset view their academic life in terms of process-oriented growth, learning, and development, and they view challenges and setbacks as an opportunity to improve and grow (Zeng, Hou, & Peng, 2016). They enjoy learning, exploring, experimenting, and thinking critically, as they recognize that their potential has not yet been fully realized (Dweck, 2006, 2009). The correlation between mindset and psychological well-being provides a theoretical framework for this study.

### **Conceptual Hypothesis**

As students pursue accolades and high marks of achievement to bolster their college resume, the quest to stand out and be recognized in the highly competitive admission environment may promote a fixed mindset that prioritizes the appearance of success over growth and performance stature over learning. Excessive achievement pressure may result, adversely affecting mental health and psychological well-being. Therefore, it is anticipated that the findings of this study will reveal that high achieving college-bound students with a growth mindset will have higher well-being than students with a fixed mindset.



Questions for future study may include:

- Does the college admission process promote a fixed mindset?
- How does the college admission process influence parenting styles that affect the development of their children's mindset?
- How does the college admission process influence parenting styles that affect their children's well-being?
- Is there a relationship between mindset and locus of control among adolescents?
- Is there a relationship between mindset, narcissism, and empathy among adolescents?
- How does achievement pressure related to the college admission process affect school engagement and the high school experience?
- How can the college admission process elicit healthier positive outcomes for their students?

### **Clarification of Terms**

The following definitions provide a framework for the variables discussed in this study:

- **Fixed Mindset:** Belief that qualities like intelligence, talent, personality, or moral character are fixed traits. Those with a fixed mindset believe that talent alone creates success, and they are more focused on the outcome than on the process (Dweck, 2006).
- **Growth Mindset:** Belief that qualities like intelligence, talent, personality, or moral character can be developed through dedication, effort, and hard work. This view inspires resilience, perseverance, and an authentic love for learning, as challenges and failures are considered opportunities to improve, learn, and develop skills (Dweck, 2006).
- **Well-Being:** Rooted in the philosophy of positive psychology as postulated by Martin Seligman, well-being emphasizes the scientific study of optimal human functioning,

strength, and resilience; it is not considered in terms of an absence of pathology or mental illness (Weller-Clarke, 2006). The pillars of Seligman's PERMA model along with theoretical postulates of risk and resilience, prevention science, and social-emotional learning provide the foundational underpinnings of the Child and Adolescent Wellness Scale (CAWS) used in this study (Copeland, Nelson, & Traugher, 2010).

- Health: A state of complete physical, mental, and social well-being and not just the absence of sickness or frailty (APA, 2015).
- Private Christian, college preparatory high schools in Orange County, California: The five private Christian high schools in this study include students in grades 9-12, and their academic programs are designed to prepare students for acceptance into a four year-college, university, or academy. The cost to attend each of the high schools range from approximately \$15,000 to \$18,000 annually.
- High achieving senior students attending private Christian, college preparatory high schools: Senior students in grade 12, ages 18 and older who will have completed at least eight Honors, AP, or IB level courses, and are earning a weighted cumulative grade point average of at least 3.8.
- College admission process: The requirements and process for preparing and applying to institutions of higher education for undergraduate study.
- Highly selective college, university, or academy: The category of schools that is considered highly selective are those 50 among the 3,500 accredited colleges, universities, and academies that admit 25% or fewer of those applying each year (Taylor, 2013).

- Achievement pressure: The pressure and related stress associated with the perceived need to perform at high levels.
- Orange County, California: Orange County is one of the largest counties in California and the sixth largest in the nation. Orange County is considered affluent, and in 2014 its cost of living remained third highest among peer market, which is 44% higher than the national average and 40% higher than the national median (Orange County Community Indicators Report, 2014).
- Affluence: Average family income of \$120,000.00 or higher.
- Stress: Stress may be defined as “a state of distress in an individual in response to an environmental precipitant” (Suldo, Shaunessey, & Hardesty, 2008, p. 273). It is associated with a state of mental or emotional strain or tension resulting from adverse or very demanding circumstances (APA, 2018).
- Anxiety: An emotion characterized by feelings of tension, worried thoughts, and physical changes like increased blood pressure. People with anxiety disorders usually have recurring intrusive thoughts or concerns. They may avoid certain situations out of worry. They may also have physical symptoms such as sweating, trembling, dizziness or a rapid heartbeat (APA, 2018).
- Narcissism: A term to describe inordinate, extreme self-absorption characterized by a lack of empathy, an over-inflated self-image, exaggerated self-confidence, an addiction to fantasy, and an underlying fragile self-esteem (Rhodewalt, 2017).
- Empathy: The process of vicariously sharing another person’s subjective experience, feelings, thoughts, or attitudes (Ioannidou & Konstantikaki, 2008).

- Resilience: Resilience is “the process of adapting well in the face of adversity, trauma, tragedy, threats or significant sources of stress — such as family and relationship problems, serious health problems, or workplace and financial stressors. It means ‘bouncing back’ from difficult experiences” (APA, 2014, para. 4). Resilience involves thoughts and behaviors, and it can be learned and developed.

## **Summary**

This study is presented in five chapters and adds to the current body of research knowledge related to mindset and adolescent psychological well-being as it relates to achievement pressure and the college admission process. The purpose of this study is to determine if there is a relationship between mindset and psychological well-being among high achieving college-bound senior students attending private, Christian college-preparatory high schools in Orange County, California. The study incorporated The Mindset Assessment Profile to determine mindset among the subjects and the Child and Adolescent Wellness Scale to determine psychological well-being. It was anticipated that the findings of this study would reveal that those students with a growth mindset will have higher psychological well-being than students with a fixed mindset.

Chapter 1 includes an explanation of the background of this quantitative study and outlines the problem statement, purpose, and importance of the study. Research questions, the theoretical framework, the conceptual hypothesis, and clarification terms are also outlined in Chapter 1. Chapter 2 presents a review of the relevant literature, which delineates the competitive requirements of the college admission process and its effect on learning, mindset, life experience, and student health and psychological well-being.

Chapter 3 describes the research design and methodology and includes detailed information about participant recruitment and demographics as well as instrumentation, procedures, data collection and recording, as well as data process and analysis. Methodological assumptions and limitations are also outlined in Chapter 3. Chapter 4 presents the study's findings and includes a discussion of the relationship between mindset and psychological well-being. Chapter 5 provides a summary of the entire study and explains the findings in the context of existing research. In addition, conclusions and possible limitations to the current study are noted, and future research questions and recommendations are identified for further exploration and study.

## **Chapter 2: Review of Relevant Literature**

### **Overview**

The highly competitive college admissions process in the United States frames the profile that high school students aspire to achieve and affects the way they are parented and educated. The pressure to perform, compete, and excel for the purpose of building a robust college resume designed specifically to impress college admissions officers has had a significant impact on many high school students in the United States of America (Abeles, 2016; Little, Melman, & Akin-Little, 2007). Since 2002, the volume of college applications has significantly increased while the number of enrollment opportunities on four-year college campuses has remained relatively unchanged (Bound, Hershbein, & Long, 2009). As a result, the number of admission offers and enrollment expansion have not kept pace with the number of applications generated (Redding, 2013). This has served to intensify the competition to secure a space on college campuses across the country, which in turn, has affected high school students in a number of ways (Hurwitz & Kumar, 2015).

Increased achievement pressure related to the college admission process has significantly impacted student health and psychological well-being and has produced the most anxious, stressed, and sleep-deprived generation ever (Jones & Ginsberg, 2006). An extreme focus on exceptional grades in the most rigorous courses possible along with impressive accomplishments on an extensive list of extracurricular activities has left many students exhausted, discouraged, and stressed with little time to identify strengths, discover and develop passions, and cultivate real-world life skills (Abeles, 2016).

The manner in which students view achievement is directly related to their mindset, which may be defined as a perception or theory that people hold about themselves (Dweck, 2006). The effects of an intense focus on achievement for the express purpose of bolstering a

college resume may foster a fixed mindset that views intellectual ability in terms of a fixed, unchangeable amount, as opposed to a growth mindset that views intellectual ability as something that can grow and develop over time (Yeager & Dweck, 2012). The significant amount of time and the high degree of effort that are required by students, coupled with the stressful nature and uncertainty of the challenging college admission process provide a rich opportunity to study the relationship between high school students' mindset and their psychological well-being.

This chapter will provide historical background related to the college admission process in the United States and how it affects parenting and the culture of American education. In addition, this chapter will illuminate the current research related to the health and psychological well-being of American adolescents and explore this study's theoretical framework based on Carol Dweck's research on mindset, as well as adolescent well-being rooted in Martin Seligman's philosophy of positive psychology.

### **College Admission Trends**

Reviewing admission trends is an important precursor to understanding the relationship between the college admission process and achievement pressure among American high school students. Since 2002, the volume of college applications has significantly increased while the number of enrollment opportunities on four-year college campuses has remained relatively unchanged (Bound et al., 2009). The increase in the total volume of college applications may be related to the larger number of U.S. graduates applying to college, the greater number of applications from abroad, and an increase in the number of applications individual students are submitting (Bound et al., 2009; Hurwitz & Kumar, 2015).

During the decade spanning 2002 through 2012, there was a steady increase in the number of high school graduates with 2.9 million reported in 2002, a reported high of 3.4 million in 2011, and a projected 3.2 million per year for the foreseeable future (Hurwitz & Kumar, 2015). In addition, there was an 81% increase in applications for first-time, first-year, degree-seeking applicants among four-year colleges across the selectivity spectrum (Hurwitz & Kumar, 2015). As a result, the number of admission offers and enrollment expansion have not kept pace with the number of applications generated, which has served to intensify the competition to secure a space on college campuses across the country (Hurwitz & Kumar, 2015; Redding, 2013).

There are a number of factors related to the increase in volume of college applications. Over the past few decades, the perceived value of a college education has grown, as it is associated with several positive outcomes including increased financial earnings, career opportunity and success, and intellectual, emotional, and social well-being. Those with a bachelor's degree typically yield greater median earnings and experience a lower rate of unemployment throughout their lifetime (Villarreal, Heckhausen, Lessard, Greenberger, & Chen, 2015). For example, in 2012, young adults age 25 to 34 with a bachelor's degree, earned \$46,900, which is 36% more than those who earned a high school diploma (\$30,000), 24% more than those who earned a two-year associate's degree (\$35,700), and more than twice as much per year (\$22,900) as those who did not graduate from high school (Snyder & Dillow, 2015). As a result, many high school students aspire to earn a four-year bachelor's degree because of its potential benefits. In 2001, James E. Rosenbaum, professor at Northeastern University and sociology faculty fellow at the university's Institute for Policy Research, coined the term, 'college for all' in reference to the finding that 97% of high school seniors expected to obtain



some type of postsecondary education at some point in their lives with nearly 80% expecting to enroll in college the year after high school graduation (Villarreal et al., 2015).

While the pursuit of a college education is valued and generally recognized as a positive endeavor, Rosenbaum reports that while most American high school graduates are attending college, fewer than half are actually earning either a two-year or four-year degree. Less than 50% of high school seniors planning to pursue a bachelor's degree actually succeed, and the completion rate for low-achieving students who start college is less than 20% (Rosenbaum et al., 2010). Nevertheless, the intense focus on matriculating American high school students to four-year colleges has contributed to the increase in the volume of college applications, resulting in an intensified competitive admission process and heightened achievement pressure among American high school students.

The college ranking system and perceived value according to selectivity has also had an impact on college admission trends. Low acceptance rates are an important factor in the calculation of college rankings, which have proven to affect admission outcomes, especially among colleges ranked within the top 25 colleges and universities (Meredith, 2004). The *U.S. News and World Report* is one of the most widely recognized sources for undergraduate college ranking, and for rating purposes, low selectivity and high yield are valued (Reingold, 2004). As applications increase and acceptance rates decrease, improved college rankings allow institutions to require higher grade point averages and test scores and at the same time reduce the amount of financial aid needed to attract its entering freshmen class (Ehrenberg & Liu, 2009).

The Center for Public Education (January 15, 2010) reports that college admission selectivity or competitiveness is based on Barron's Profile of American Colleges (2009) according to the following six ratings:

1. **Most Competitive:** Colleges included in this definition accept fewer than 33% of their applicants. Students typically accepted to these universities are among the top 10% to 20% of their high school graduating class and have SAT scores of 655 or higher on the individual sections of the SAT exam.
2. **Highly Competitive:** Colleges in this category accept between 33% and 50% of their applicants. Students typically accepted to these universities are among the top 20% to 35% of their class and have SAT scores between 624 and 655 on the individual sections of the SAT exam.
3. **Very Competitive:** These colleges tend to accept between 50% and 75% of their applicants, and the typical student admitted to these colleges are among the top 35% to 50% in their high school class and score in the high 500s and low 600s on each section of the SAT exam.
4. **Competitive:** Colleges in this definition tend to accept between 75% and 85% of applicants who are typically ranked in the top 50% to 65% in their high school class and score in the 500s on each section of the SAT exam.
5. **Less-Competitive:** Colleges in this category accept more than 85% of applicants who are typically ranked in the top 65% in their high school and score below 500 on each section of the SAT exam.
6. **Non-Competitive:** The criterion for these colleges is a high school graduate, and they admit 98% or more of their applicants.

During the timeframe between 2002 and 2012, there was an increase in the number of applications submitted by first-time, first-year degree seeking students across the college selectivity spectrum (Hurwitz & Kumar, 2015). The Competitive category includes more than

600 colleges, and collectively, it experienced an 81% increase. The net increase of over 1.4 million applications over this decade translates to an average of more than 2,200 applicants per college in this category (Hurwitz & Kumar, 2015). Colleges in the Very Competitive category experienced a growth rate of 67%, while colleges in the Highly Competitive category experienced a growth rate of 69% (Hurwitz & Kumar, 2015). During the same timeframe, roughly 80 colleges that comprise the Most Competitive college category experienced an increase of approximately 572,000 applications. Although this amount is a considerably smaller net increase in application volume compared to other selective categories, at approximately 81%, it is an identical estimated percentage of growth as colleges in the Competitive category but a considerably larger increase on a per-college basis. As a result, greater demand with a relatively steady supply of spaces available on these highly selective campuses has resulted in lower acceptance rates.

The College Board reports that the admission rates decreased in all Barron's competitiveness categories between 2002 and 2012 with the steepest decrease among the Most Competitive colleges, where the admission rate decreased from 31% to 22% (Hurwitz & Kumar, 2015). For example, the acceptance rate at Harvard University in 1985 was 16% and by 2011, it had decreased to just over 6%. Considering that 93.8% of all Harvard applicants receive a rejection letter, the pursuit of becoming one of the elite few to receive the highly coveted acceptance letter has further fueled excessive achievement pressure (Redding, 2013).

Because of the extensive publicity of the current *U.S. News and World Report* rankings and its easy online access worldwide, these rankings have the ability to significantly influence college applicants, despite the fact that there are several problems associated with the system (Meredith, 2004). In an attempt to bolster rankings, schools may be incentivized to publish

misleading or inaccurate information or make questionable strategic admission decisions. For example, for the sake of ease, colleges may make admission decisions based primarily on objective metrics and other qualities that determine rank rather than on the overall quality of the student (Meredith, 2004). For example, while grade point average and standardized test scores may be important factors in the overall admission determination, there are other qualities such as leadership and emotional intelligence that may be more difficult to quantify but have been shown to correlate with school success (Freedman, 2016; Meredith, 2004).

Regardless of the potential pitfalls of the ranking system, research shows that “rankings impact admission outcomes, such as SAT scores of incoming students, and university pricing policies, such as net tuition” (Meredith, 2004, p. 443). As a result, colleges continue to compete in the admission ratings game, as they seek to increase their rankings. This can be partially achieved by increased applications that create lower acceptance rates, which in turn creates a perception of prestige and a highly desirable school, thereby further increasing demand.

As highly selective colleges battle for a top ranking or specific place in line rather than an independently defined goal, students get caught in the crossfire of positional competition (Baum & McPherson, 2011). Increased demand allows colleges to be more selective in terms of measurement qualities such as grade point average, SAT and ACT scores, advanced placement and honors level courses, and other established criteria. College competitors respond by ramping up admission efforts and qualifications, which ultimately drives achievement pressure among high school students in their quest for entry to highly selective universities. In an effort to look good on paper and impress college admission officers, students feel compelled to enroll in every honors level, advanced placement (AP), or international baccalaureate (IB) course offered rather

than engage in a valuable learning experience that has the potential to result in a significant challenge or failure (Baum & McPherson, 2011).

According to Baum and McPherson (2011), competition-driven amenities that have more to do with impressing applicants than with enriching education can become both wasteful and distracting. Students may add more to their stress levels than to their learning when they feel pressed to take every AP class offered; the enormous pressure to look good on paper may also cause students to pass on the valuable experience of tackling a subject or project that might lead to failure. (pp. 8-9)

As colleges boast lower acceptance rates in their competition for higher rankings, standards for admission and tuition have ratcheted even higher, and the volume of applications has continued to grow steadily. In fact, colleges that increased tuition and fees by the greatest amounts yielded more applications than those colleges with more modest increases (Hurwitz & Kumar, 2015). Known as the 'Chivas Regal effect' whereby expensive equates to superior and cheaper translates to inferior, parents accept the greater tuition costs, as they associate it with a higher quality of education, a more prestigious degree, and a respected status symbol (Baum & McPherson, 2011).

Another consideration related to the allure of highly selective colleges is the assumption that because more workers are college educated, employers may believe that those who graduate from 'average' colleges are less productive than in the past (Bound et al., 2009). This line of thinking assumes that a degree from a more selective institution equates to a better college education and therefore a more productive employee. Many adolescents and their parents believe attending an elite college translates to a near-guarantee for a prestigious, high paying job, and a successful life. In reality, however, the stature of a college alone cannot predict the variables that

affect a student's college experience and life success (Thompson, 2011). Regardless of the potential pitfalls of the ranking system, research shows that "rankings impact admission outcomes, such as SAT scores of incoming students, and university pricing policies, such as net tuition" (Meredith, 2004, p. 443).

Geographical location also affects the level of competitiveness in the college admission process. Most students attend college in their home region, but the northeastern United States and California are particularly attractive locations for those who choose to seek a college outside their home state. As a result, colleges in these geographical regions typically experience increased demand and heightened competition (Bound et al., 2009).

Further adding to the supply and demand equation for California schools is the California Transfer Admission Guarantee (TAG) program. It is a streamlined and facilitative plan that guarantees admission to a California State University (CSU) or University of California (UC) school for students who attend in-state two-year colleges and meet specified eligibility requirements (Villareal, 2015). This program impacts the number of spaces available for freshmen as does the appeal nationwide for students to attend schools in the highly desirable state of California. According to *U.S. News and World Report*, of the top 10 schools nationwide that received the most applications during the fall of 2014, nine are located in California (Snider, 2015). As a result, students who reside in California may be at risk for greater achievement pressure, as they have a disadvantage in terms of enrollment opportunities in their home state due to high demand and excessive competition.

Technology has also played a significant role in the massive increase in the number of college applications, especially as it relates to the popularity and wide-use of the Common Application among colleges across the country. The Common Application was originally created

in 1975 by 16 private colleges as a voluntary non-profit organization that provides a common application for students to apply to member institutions (Ehrenberg & Liu, 2009). The Common Application makes the process easier, thereby encouraging multiple submissions. According to the Journal of College Admission, in 2007, over 300 colleges accepted the Common Application, and by 2010, there were over 400 college members, including international institutions, generating over 500,000 college applicants. By 2013, the paper Common Application was no longer available, and over 500 member institutions accepted the online version. In the 2014-2015 application season, 857,000 students from over 26,000 high schools submitted more than 3.7 million applications. Whereas nine percent of college applicants applied to seven or more schools in 1990, 16% of high school students graduating with the class of 2014 applied on average to 11 to 20 schools (Applications by the Dozen, 2016).

As more applications are submitted, college admission officers have a greater volume to sift through, which in turn increases competition and generates increased fear among applicants. The result exacerbates a vicious cycle, as students submit more applications fearing that there will be no available space for them at any college or university. For example, during the 2014-2015 application season, the University of California Los Angeles (UCLA) received a record 120,000 applications, comprised of 92,681 freshman applicants and 20,063 transfer applicants, which “makes UCLA the nation’s most applied-to four-year university” (Vazquez, 2015, para. 2). For the first time in UCLA history, the number of freshmen applications surpassed 100,000 for the 2017-2018 school year, and the 5.3% increase in freshman applications from the previous year netted 102,000 applications. Of that number, a record 63,400 California high school seniors applied, which at 4,600 applications is nearly a 7.8% increase (Kendall, 2016). As the number of applications increases, so does the minimum threshold for admission criteria including a higher

grade-point average, higher ACT or SAT scores, as well as increased involvement in extracurricular activities and stellar letters of reference (Applications by the Dozen, 2016).

### **College Prep**

Many families go to extreme lengths to secure any kind of advantage in the competitive college admission world, and children of affluent families have greater access to such advantages. From a young age, many students are groomed to be high achievers with the express purpose of creating attractive candidates to prestigious highly selective colleges and universities. Many parents begin investing in their children's college credentials starting with 'the right' preschool, and their pursuit continues with 'the best' schools, teachers, tutors, coaches, and private college consultants (Baum & McPherson, 2011; Jump, 2015). The competitive college admission process dominates the lives of American teens and fuels a lucrative industry of private college counseling and test prep designed to increase the odds of admission to highly selective colleges (Melman et al., 2007). In 2009, test prep alone was estimated to bring in four billion dollars of revenue, and the cost of hiring a private college consultant can add up to a staggering \$40,000 per student. (Redding, 2013).

### **Overscheduled Lifestyle**

The achievement pressure resulting from the highly competitive college admission process, referred to as the 'achievement epidemic' by Alexis Redding (2013), has also resulted in an overscheduled lifestyle for adolescents. Heightened competition and uncertainty as to what is required to gain admission to a 'good' college have fueled students, parents, and high schools to seek ways to gain the competitive advantage. College consultants are routinely hired to make strategic decisions on which activities students should pursue to impress college admission counselors, many times at the expense of investing in activities related to their own interests,



talents, or desires (Redding, 2013). Referred to as ‘credentialing theory,’ building an impressive resume wrought with honors and advanced level courses and an impressive list of leadership, community service, and other extracurricular activities has become the primary focus of many prospective students and their families (Abeles, 2016; Redding, 2013). Organized activities have replaced free time, and this overscheduled lifestyle focused primarily on what the profile communicates has left students with little time and limited opportunity to explore their interests and discover their true identity (Redding, 2013).

While there are many benefits that may be associated with extracurricular activities, research indicates that they are greatly predicated on the presence of intrinsic motivation; behavior that is driven by internal rewards, as opposed to extrinsic motivation, which involves behavior motivated by earning external rewards or avoiding punishment (Cherry, 2015). Intrinsic motivation involves engaging in an activity for the satisfaction and pleasure that is derived while exploring or learning something new; it contributes to well-being (Padhy, Valli, Pienyu, Padiri, & Chelli, 2015). For many students, however, the high school experience, in particular, is relegated to coursework and activities that are primarily focused on what is perceived to be most advantageous for their college applications, an endeavor that is primarily extrinsically motivated (Abeles, 2016; Lythcott-Haims, 2016).

In the context of building their college resumes, many students view lunch and class breaks as an irrelevant waste of time. As a result, rather than enjoying leisurely down time, they seek to fill every moment with additional opportunities for more practice, extra help from teachers, or an added extracurricular activity with the hope of creating a profile that will make them stand out through their robust college applications (Melman et al., 2007).

While regularly scheduled activities may be beneficial for adolescents, research is beginning to suggest that overscheduling may be detrimental. Many adolescents are juggling the demands of adult structured activities, social clubs, expectations from teachers about schoolwork, and pressure from parents about their contribution to household chores. Academic pressures are of specific significance for high school students, many of whom are thinking about, or preparing for, college or other future plans. These increasing obligations and time demands are cutting into adolescents' leisure experiences, which are critical for helping them discover their identities and release stress. (Melman et al., p. 21, para. 6)

In contrast to regularly scheduled compulsory activities such as school, leisure activities are associated with intrinsic motivation, freedom, and enjoyment (Melman et al., 2007). The manner in which children and adolescents spend their time has a significant impact on their development, and leisure time allows them the opportunity to make decisions, as they engage in choices often inherent in unstructured leisure activities. Opportunities to relax, be energized, role play, experiment, or interact and relate with others are all important aspects of leisure experiences; they allow adolescents to experience new social norms on a larger scale outside their families (Melman et al., 2007).

Referred to as the 'overscheduled hypothesis,' many parents and students believe that involvement in a large number of activities provides a competitive college advantage. This has resulted in a significant amount of human, financial, and temporal resources dedicated to engaging young students in a plethora of activities to begin building the most impressive college profile possible. This is especially true for students from affluent families who have greater access to extracurricular activities and services as well as increased social pressure to produce

high achieving children (Randall, Bohnert, & Travers, 2015). As a result, adolescents spend a significant amount of time engaged in a number of activities they can list on their college applications in addition to the great amount of time spent in class and working on assignments (Melman et al., 2007).

Overscheduling may be detrimental for adolescents as they juggle the demands of school, adult-structured activities, social obligations, and household family responsibilities. The time demand and energy required for these responsibilities are interfering with the opportunity for adolescents to enjoy leisure experiences, explore new interests, and release stress, as they discover their identities (Melman et al., 2007). Furthermore, as students increase the number of activities and amount of time engaged in extracurricular activities, they typically spend more hours on homework assignments, and they show greater signs of impairment in stressful situations. As a result, their risk of experiencing higher levels of anxiety is increased (Melman et al., 2007).

### **Decrease in Empathy**

While a busy schedule may provide students with the opportunity to add embellishments to their college resume, an overscheduled lifestyle can affect the development of empathy. Webster's dictionary defines empathy as the action of understanding, being aware of, being sensitive to, and vicariously experiencing the feelings, thoughts, and experiences of another. It is often characterized as the ability to 'put oneself into another's shoes' or in some way experience the outlook or emotions of another being within oneself (Ioannidou & Konstantikaki, 2008).

Neuroscience shows that the part of the brain where empathy develops relies on margin or space for reflection and daydreaming (Elmore, 2015). As a result, excessively busy schedules coupled with an overabundance of information from technology and the constant pings of social

media may decrease margin and therefore adversely affect the development of empathy (Konrath, O'Brien & Hsing, 2011). Since 2000, empathy, kindness, and interpersonal skills among American college-age students have steadily declined (Konrath et al., 2011; Twenge & Campbell, 2009), while bullying, school violence, narcissism, depression, emotion-related illnesses, and adolescent drug and alcohol use have increased (McCombs, 2004).

The negative correlation between narcissism and empathy are revealed in the attitudes and behaviors among college age students. According to a study conducted by the Pew Research Center in 2006, 81% of 18-25 year olds indicated that getting rich was among their most important goals, and 64% revealed that it is their generation's most important goal of all. Only 30% indicated that helping others who are in need is an important goal among their generation (Konrath et al., 2011). The results of this study led a number of critics to nickname these young millennial adults as the 'Look at Me Generation' and 'Generation Me,' believing that they "compose one of the most self-concerned, competitive, confident, and individualistic cohorts in recent history" (Konrath et al., 2011, p. 187).

The college admission process is based on a system of competition and achievement success. As adolescents are pressured to focus on their own individual achievement to build a college resume that will win them admission to a selective college, they are increasingly focused on their own accomplishments and success and have less time to consider the needs of others or offer help. Empathy may even be considered detrimental, as others are viewed as competitors in the race to secure one of the coveted few college admission offers. In addition, strong achievement motivation and competition can foster narcissistic behaviors that are aimed at personal gain including manipulating others, lying, and cheating, and all correspond to a decline in empathy toward others (Konrath et al., 2011).

Due to the competitive nature of college admissions, especially at the highly selective universities, students are increasingly focused on themselves at the expense of others (Konrath, et al., 2011). Being recognized as the best, standing out above the rest, and winning at all costs accelerate a competitive, self-centered culture. Personal achievement, individual happiness, and hard work are valued by American youth above fairness, concern, and caring for others (Elmore, 2015; Weissbourd et al., 2014). While happiness, hard work, and achievement are important values, when they are prioritized over caring and fairness, adolescents are at a greater risk of being disrespectful, cruel, and dishonest. In addition, when caring for others is not a priority, children are less likely to develop key foundational relationship skills, and selfishness, indifference, and a lack of empathy are more prevalent. Low empathy may result in depression, a lack of compassion, intolerance, bullying, aggression, and violence (Konrath et al., 2011).

According to the National Center for Educational Statistics (2016), more than one out of every five students report being bullied. In addition, cheating incidents have increased, as 75% of high school students admit to copying another's homework, and 50% admit to cheating on a test (Weissbourd et al., 2014). Although parents and teachers indicate that they prioritize developing caring children above achievement, a majority of youth believe that their parents and teachers are actually more concerned about their achievement than about them becoming caring members of their community. As a result, Weissbourd et al. (2014) emphasize the need to examine the messages that are being communicated to children and youth daily.

## **Parenting**

Parental involvement in education affects both academic success and mental health (Wang & Sheikh-Khalil, 2014). Adolescents' perceptions of their parents' attitudes toward achievement have an even greater impact on well-being than the amount of time they spend and

the number of activities they are engaged in (Luthar, Shoum, & Brown, 2006). Parental criticism seems to have a particularly detrimental effect when children feel as if they have failed to live up to their parents' standards. Feeling diminished or unworthy as a result of being denigrated or disparaged by parents creates undue pressure and stress adversely affecting adolescent well-being (Luthar et al., 2006).

Regardless of socio-economic status, all children can be profoundly affected by chronic parental criticism. Parenting problems such as neglect and harshness occur in low socioeconomic families, due to the many stressors associated with poverty. High parental criticism in high-income families may reflect the pervasive achievement pressure some parents feel as it relates to their reliance on accomplishments for their self-worth and the stress that results due to perceived failure (Luthar et al., 2006; Randall et al., 2015). According to Galloway and Conner (2015), "when parents in high socioeconomic status communities value their children's academic and extracurricular achievements more than the development of their children's character, or when they are overly critical, students report poorer socioemotional health" (p. 101, para. 4). Parenting behaviors that balance high expectations and reasonable standards while conveying acceptance and appreciation promote adaptive, healthy development (Luthar et al., 2006).

Academic socialization is a type of parental involvement, and it has both the "strongest positive relation with achievement and strongest negative relation with depression" (Wang & Sheikh-Khalil, 2014, p. 620, para. 1). As parents discuss future plans and promote the value and importance of education with their children, academic engagement increases. In addition, parental school involvement supports adolescent mental health, as it conveys a message that they value their child's progress and overall well-being (Wang & Sheikh-Khalil, 2014). Simply volunteering or attending school events has the potential to communicate a sense of caring and

increase parental closeness, which can help adolescents produce positive self-representations, but it is important that parents are mindful to avoid encroaching on the development of their child's independence (Wang & Sheikh-Khalil, 2014).

In an attempt to create a favorable profile specifically for college admission purposes, many parents are overly involved and protective in childrearing (Abeles, 2016; Deresiewicz, 2014; Elmore, 2015; Levine, 2008). Educators and coaches lament the challenges they face with parents who argue scores, grades, team selection, playing time, and disciplinary action. When parents intervene and constantly protect their children from adversity and life's natural consequences, they interfere with their opportunity to develop resiliency, perseverance, and coping strategies (Weissbourd et al., 2014).

Because they have grown up with participation awards espousing everyone as a winner, today's adolescents have based their self-worth on grades, trophies, and other extrinsic rewards of which they question their value, meaning, and merit. As a result, they are not well-equipped to face challenges, and they struggle to recover when they experience failure. Consequently, the combination of sheltered protection and generous praise coupled with internal doubt and limited opportunities for growth result in the growing diagnosis of 'high arrogance and low self-esteem;' what is perceived as boldness and confidence is actually rooted in fear and insecurity (Elmore, 2015).

### **Perfectionism**

With college admission as a primary goal, performance related measurements including test scores and grades are commonly a primary focus at the expense of growth and mastery learning. Fear of failure and perfectionism are often the result, which can lead to negative emotions and destructive behaviors (Madjara et al., 2013; Redding, 2013). Perfectionism may be

defined as a “rigid self-expectation for high-standard performance that can be unsuitable to the concrete condition, and it commonly includes exaggerated self-criticism” (Madjara et al., 2013, p. 766, para. 2). Whereas the positive and adaptive aspects of self-oriented perfectionism that include satisfaction and self-esteem are characterized by self-directed and realistic aspirations and high standards, maladaptive perfectionism is characterized by unrealistic expectations and concerns about external evaluations that produce anxiety and stress (Madjara et al., 2013). Maladaptive perfectionism can occur when students are overly focused on grades and other performance measures. Resulting feelings of shame, hopelessness, and depression may lead to substance abuse, self-injury, and other risk-taking behaviors (Conner et al., 2014). In contrast, adaptive perfectionism results in more target-focused performance, higher psychological adjustment, and a greater resistance against negative peer pressure (Madjara et al., 2013).

Perfectionism is linked to achievement goal theory, which is a socio-cognitive approach to the study of motivation in education, and it relates to three general goals pursued in the learning process (Madjara et al., 2013). The first is mastery goal orientation, and it emphasizes intrinsic motivation and the enjoyment that results by participating in the act of learning. The second is a performance-approach orientation where the purpose is “to gain a positive external evaluation... as exemplified by those who wish to gain public recognition of their abilities” (Madjara et al., 2013, p. 767, para. 4). The third is performance-avoidance goal orientation whereby “the purpose is to avoid negative external evaluation, and the orientation is characterized by those who wish to avoid being considered incompetent” (Madjara et al., 2013, p. 767, para. 4).

In terms of psychological well-being and positive learning behaviors, long-term-learning mastery goals are considered to be positive and more beneficial than performance-approach and



performance-avoidance goals. Whereas boredom and worry during learning tasks, surface-level processing, and an inability to persist in the face of difficulty or failure are characteristic of the performance goal orientations, mastery goal orientation is associated with enjoyment and happiness during learning tasks, deeper analytical processing, and persistence when confronted with challenges and failures (Madjara et al., 2013). Mastery goals are associated with the more positive adaptive patterns of perfectionism, while performance goals are associated with the maladaptive pattern of perfectionism.

The adoption of specific achievement goals is largely related to environmental emphases including parent and teacher expectations and interactions (Madjara et al., 2013). For example, high parental expectations tend to promote mastery goals and related adaptive aspects of perfectionism including higher personal standards and organizational skills, whereas the perception of parents as critical is associated with performance based goals and maladaptive aspects of perfectionism including concern for making mistakes. In addition, it has been found that the adoption of mastery goal orientation develops when teachers refer to learning as an active process, engage students through collaborative work, avoid competition, promote autonomy in learning, provide constructive feedback, and focus on effort rather than just performance outcomes. In contrast, the adoption of both performance approach and performance avoidance goals that generate concern related to mistakes promote a maladaptive pattern of perfectionism (Madjara et al., 2013).

Because metrics such as grade point average, test scores, and class rank are important criteria in the college admission process, students are pressured to build a compelling resume that not only paints them as suitable applicants, but as stand out candidates among the many other applicants vying for a coveted acceptance letter (Abeles, 2016; Deresiewicz, 2014;

Lythcott-Haims, 2016). This focus promotes a performance-approach orientation to gain a positive external evaluation and at the same time avoid negative external evaluation resulting in maladaptive perfectionism (Madjara et al., 2013).

### **Social Emotional Learning**

Given the achievement pressure related to the increased levels of competition associated with the college admissions process, a significant amount of time and effort are required to gain admission to college. However, the efforts associated with building a flashy resume that will help applicants stand out in the college admission process have impacted important growth opportunities, leaving many students transitioning from high school to college ill-equipped for the academic and social demands of college life (Cleary et al., 2011).

From an early age, a significant amount of time and energy are focused on preparing students for college (Melman et al., 2007). As a result, high school success and related educational practices are typically focused on academics and measured by achievement as reflected by test scores, grade point averages, college acceptance results, and scholarship offers (Zins et al., 2004). Instead of prioritizing process-oriented learning and development, the quest for a perfect profile promotes performance measures and focuses on extrinsic rewards such as grades, scores, rankings, and awards. As a result, the pursuit of accolades and high marks of achievement for an impressive college resume can supplant various aspects of learning, including risk, struggle, persistence, resilience, and growth, often at the expense of character, integrity, and well-being (Guang et al., 2016).

According to Comb's (1986) person-centered view, meaningful sustained learning is considered a whole-person phenomenon with cognition and affect working together synergistically (McCombs, 2004). Research reveals that emotional intelligence is important to

human health and function, and there is a strong interconnectedness of intellect and emotions in the learning process, as emotions drive attention, motivation, memory, learning, and other mental processes (McCombs, 2004). Because many aspects of learning are based on relationships and are social in nature, an important purpose of learning is to build learning communities that create networks for dialogue and reflection and foster collaboration, problem solving, and meaningful real-world learning (Haythornthwaite & Andrews, 2011). In addition, because technological advances in the 21st century have made information and subject content matter easily accessible, learning experiences should prepare learners to produce and use knowledge, not just consume it (Tyler, 2013). This shift in focus alters the purpose of education to one that teaches learners how to communicate with others, analyze and utilize accurate relevant information, and serve as ‘co-learners and knowledge producers’ applying interactions and key learnings beyond classroom walls (McCombs, 2004).

In an effort to develop healthy, socially responsible citizens, learning experiences should also help students identify their gifts and unique qualities, understand their meaning and purpose in life, and discover how they can maintain hope. This is consistent with educator and author, Herbert Kohl’s emphasis on the importance of teaching students to recognize their value, understand their worth, and believe in their ability to achieve amidst difficult circumstances (McCombs, 2004). Based on learner-centered principles, social emotional learning focuses on the process for integrating thoughts, emotions, and behaviors to meet needs, accomplish meaningful tasks, and develop skills necessary to be productive members of society. The American Psychological Association (APA, 1997) identifies 14 learner-centered principles categorized by the following four research-validated domains: cognitive and metacognitive

factors, motivational and affective factors, developmental and social factors, and individual differences factors:

According to McCombs (2004), these principles provide a foundation for learning and motivation as natural processes that occur when the conditions and context of learning are supportive of individual learner needs, capacities, experiences, and interests. This foundation is essential to integrating social emotional learning programs and practices into academic programs that attend holistically to the needs of all learners. (p. 28, para. 4)

Research reveals that social and emotional skills are essential components for the successful development of learning skills and cognitive thinking (McCombs, 2004). In addition, social emotional learning environments are designed to extend instruction and generalize learning beyond the classroom. As a result, social emotional learning contributes to academic success as well as intrinsic motivation, positive relationships, and healthy growth and development (McComb, 2004). Social emotional learning may be defined as the process by which people learn how to recognize and manage emotions, develop and maintain positive relationships, empathize and care about others, make informed and responsible decisions, set and achieve goals, avoid poor behaviors, and behave responsibly, morally, and ethically (Jones & Bouffard, 2012). Social emotional learning enhances students' ability to integrate thoughts, emotions, and behaviors to achieve important aspects of life (Zins et al., 2004, p. 4, 6).

### **Emotional Intelligence**

Essentially, social emotional learning focuses on developing emotional intelligence, which is the ability to identify and manage one's own emotions and the emotions of others. Generally speaking, there are five main components of emotional intelligence; the first three are focused on self and include self-awareness, self-regulation, and motivation, and the last two are

focused on others and include empathy and social skills. Emotional intelligence is recognized as the greatest single ingredient to foreshadow student success after graduation, as it plays a significant role in the ability to form and sustain quality relationships (Goleman, 1995).

Attributes of emotional intelligence such as self-awareness, self-regulation, perseverance, resiliency, emotional stability, empathy, and social skills are more accurate predictors of success than any other variables including IQ and academic achievement (Goleman, 1996). Scholastic grade point average and intelligence (IQ) have not been consistently shown to correlate with performance after graduation, but emotional intelligence does. Research reveals that students with high emotional intelligence perform better, earn higher grades, make healthier choices, are more concerned about others, and have stronger friendships and better conflict management skills. Adults with high emotional intelligence are more effective leaders, experience greater career opportunity, and have more positive personal and professional relationships (Goleman, 1995).

### **Achievement pressure**

As students strive to graduate from high school with perfected profiles that garner admission to impressive colleges and universities, the educational experience focused primarily on academic achievement diminishes students' social and emotional capacity, thereby affecting their ability to thrive in high school, college, and life beyond graduation (Abeles, 2016; Lythcott-Haims, 2016). Perceived as a means to an end, students view school as a series of hoops to jump through with short-term goals of top grades, an impressive profile, and coveted college acceptance (Abeles, 2016; Lythcott-Haims, 2016). As a result, the primary focus on academic learning and achievement has increased the pressure to perform, compete, and excel, leaving

many students exhausted, discouraged, anxious, and stressed with little time to identify strengths, discover passions, and cultivate real-world life skills (Abeles, 2016; Lythcott-Haims, 2016).

Increased achievement pressure has significantly impacted student health and psychological well-being and has produced the most anxious, stressed, and sleep-deprived generation ever (Jones & Ginsberg, 2006). The American Psychological Association's 2014 Stress in America survey revealed that stress among adolescents has increased to levels exceeding what is considered healthy, and it is significantly affecting their mental health and well-being. Teens, ages 13 -17 years, report that their top source of stress is school followed by the pressure of getting into a good college or deciding what to do after high school (APA, 2016).

According to the American Psychological Association's Stress in America Report (2014), adolescents ranging from 13-17 years old rate their stress level higher than any other age group population. The report reveals that 83% of teens indicate that school is a somewhat or significant source of stress for them, 59% indicate that managing their time to balance all of their activities is a stressor for them. Furthermore, 36% of teens indicate feeling anxious or nervous, 40% report feeling angry or irritable, and 30% report that stress is causing them to feel depressed or sad. In addition, 36% of teens report fatigue or feeling tired, 26% report a change in sleeping habits, 32% indicate that they experience headaches, and 21% experience indigestion or upset stomach as a result of stress (APA, 2014). More than 33% of teens report stress-related symptoms including anger and irritability or feeling tired, anxious, or nervous, and more than 25% report feeling overwhelmed, neglecting responsibilities, having negative thoughts, and poor sleep habits (APA, 2013).

The school year appears to be the peak season of stress for teens. The American Psychological Association's Stress in America Report (2014) indicates that 27% of teens report

experiencing high levels of stress. More than a third of teens report that their stress levels have increased over the past year and that the trend will continue in the coming years (APA, 2014). According to Gallagher (2014), a recent survey of college counseling centers has found that more than half their clients have severe psychological problems. Of the students who visit their office, 44% experience periods of severe distress, which include depression, anxiety, panic attacks, and suicidal ideation. In addition, “there has been a steady increase in the number of students arriving on campus that are already on psychiatric medication” (Gallagher, 2014, p. 5, para. 6). The Center for Collegiate Mental Health at Penn State (2014) reports that the most common mental health diagnoses among college students are anxiety and depression, and stress-related insomnia, headaches, stomachaches, and high rates of alcohol, substance abuse, and risky behaviors have been widely reported (Redding, 2013).

Suicide among Americans, ages 15 to 24 years, has been increasing since 2007, and in recent years, suicide ‘clusters,’ defined as multiple deaths in close succession and proximity, have become increasingly more common on college campuses (Elmore, 2015; Rosin, 2015). In 2014, the University of Pennsylvania had six suicides; during the 2009-2010 school year, Cornell experienced six suicides (Jarvis, 2015); in 2010, Tulane lost four students to suicide, and in 2015, three students at Appalachian State committed suicide (Elmore, 2015). Students are arriving to college with a resume that highlights the courses they completed and the extracurricular activities they championed, but they are ill-prepared and ill-equipped to navigate real-world challenges (Abeles, 2016).

### **Mindset: Implicit Theory of Intelligence**

The importance of an impressive resume in the competitive college admission process emphasizes performance measures and the appearance of intelligence and success, often to the

exclusion of process-oriented learning and development (Abeles, 2016; Lythcott-Haims, 2016). As a result, the college admission process affects mindset, as prospective college applicants are incentivized to prove their aptitude and ability rather than explore growth opportunities that may present challenges or potential risk of failure (Dweck, 2006). Mindset refers to a mental attitude or disposition that predetermines how a person responds to and interprets situations, and it affects the way students perceive their academic world (Zeng et al., 2016).

Also known as implicit theory of intelligence, mindset refers to the core assumptions that people hold about themselves in relation to the malleability of their personal qualities such as ability and personality (Heslin, Latham & VandeWalle, 2005). In this model, people hold different theories of intelligence that range from a more unchangeable entity theory, referred to as fixed mindset, to a more incremental theory known as growth mindset, whereby intelligence is more malleable and can grow (Blackwell et al., 2007). Perceptions of intelligence influence aspects of self-regulation and levels and resilience of self-efficacy, and it affects how people respond to academic challenges and perform on complex tasks (Heslin et al., 2005).

### **Fixed and Growth Mindsets**

According to Yeager and Dweck (2012), fixed mindset students “see intellectual ability as something of which people have a fixed, unchangeable amount” (p. 303, para. 6), while growth mindset students “see intellectual ability as something that can be grown or developed over time” (p. 303, para. 6). Those with a fixed mindset espousing an entity theory of intelligence view intelligence as something for which they have little control to change and are generally more focused on performance goals that document ability (Yeager & Dweck, 2012). This belief lends itself toward measuring ability and is characterized by the helpless response pattern characterized by avoidance of challenges, withdrawing effort, deteriorating performance,



or giving up when facing obstacles or the possibility that the outcome will be negative (Blackwell et al., 2007; Dweck & Leggett, 1988). Those with an entity theory view live in a perceived world of threats and defenses (Yeager & Dweck, 2012).

Those with a growth mindset espousing a more incremental theory believe that intelligence and ability can be developed through effort, and view challenging tasks as opportunities to grow (Zeng et al., 2016). In contrast to the helpless response pattern associated with a fixed mindset, growth mindset is characterized by the mastery-oriented response pattern that embraces challenges, persistence, and resiliency when faced with obstacles (Dweck & Leggett, 1988). As a result, those with a growth mindset live in a perceived world of opportunities for growth; they tend to focus more on learning goals that increase ability and competency through study, learning, effort, and persistence as opposed to being primarily focused on measurements and records (Blackwell et al., 2007; Yeager & Dweck, 2012).

For a fixed mindset student, learning focuses on extrinsic rewards such as grades, scores, rankings, and awards. Academic life is viewed in terms of various performance measurements regarding ability, intellect, struggles, and success; challenges and setbacks are interpreted as failures (Dweck, 2006). As a result, students with a fixed mindset are focused on validation and are highly fearful of making a mistake that might blemish their record. They value achievement status and appearing intelligent over learning and developing knowledge, and they will often intentionally reject challenging situations to avoid the risk of taking a misstep or losing status or stature (Dweck, 2006, 2009). In addition, fear of failure or being perceived as inferior or inadequate often influence students with a fixed mindset to conceal their weaknesses, even at times resorting to deceit and cheating (Dweck, 2006, 2009). These students are sensitive to being perceived as wrong, so they spend a significant amount of time trying to prove themselves to

others. Believing that their value is in their ability to perform, setbacks, failure, and criticism adversely affect their confidence and self-esteem often resulting in increased stress and anxiety. Feelings of shame, hopelessness, and depression may result, leading to substance abuse, self-injury, and other risk-taking behaviors (Conner et al., 2014; Madjara et al., 2013; Redding, 2013).

In contrast to students with a fixed mindset, those with a growth mindset are intrinsically motivated to learn, and they often seek opportunities for growth to strengthen weaknesses through hard work, effort, and skill development. Students with a growth mindset view their academic life in terms of learning, development, and process-oriented growth, and they view challenges and setbacks as an opportunity to improve and grow (Zeng et al., 2016). They enjoy learning, exploring, experimenting, and thinking critically, as they recognize that their potential has not yet been fully realized (Dweck, 2006, 2009).

Mindset affects the way students view school and education. Whereas success in terms of a fixed mindset is based on being validated and appearing smart, success from the growth mindset perspective is based on being stretched by learning something new and becoming smarter (Dweck, 2006). In this concept, a fixed mindset views a bad grade as failure and therefore a setback, whereas a growth mindset views failure in terms of a lack of growth or not reaching one's potential. As a result, growth mindset promotes learning while "fixed mindset makes people into non-learners" (Dweck, 2006, p. 18, para. 3). Although the original intent of formal education is designed to foster the process of learning and principles that emphasize development through learning goals and mastery-oriented responses, the measurement focus inherent in the college admission process promotes fixed mindset principles including performance goals and the possibility of a helpless response pattern.

Research shows that mindset has an effect on academic behaviors and student outcomes (Blackwell et al., 2007; Zeng et al., 2016). Growth mindset leads to greater academic engagement as well as higher grades and test scores (Zeng et al., 2016). In addition, because mindset “fosters particular judgments and reactions, it can lead to relatively consistent patterns of vulnerability or resilience over time” (Yeager & Dweck, 2012, p. 304, para. 2). As a result, the entity and incremental theories of intelligence and growth mindset have been shown to promote learning and resilience, as challenges are viewed as an opportunity to improve learning skills and abilities (Zeng et al., 2016).

### **Resilience**

According to Yeager and Dweck (2012), “resilient may refer to any behavioral, attributional, or emotional response to an academic or social challenge that is positive and beneficial for development (such as seeking new strategies, putting forth greater effort, or solving conflicts peacefully)” (p. 303, para. 4). In contrast, that which is not resilient may be characterized as “any response to a challenge that is negative or not beneficial for development (such as helplessness, giving up, cheating, or aggressive retaliation)” (Yeager & Dweck, 2012, p. 303, para. 4). Because students with a fixed mindset view success as an absence of failure and therefore avoid exposing their deficiencies, they are more likely to give up and are therefore less resilient (Yeager & Dweck, 2012).

Those with a growth mindset are more likely to bounce back from setbacks in academic and learning tasks, and they demonstrate persistence and resilience as they reach, stretch, and struggle with challenges viewing success in terms of their learning and growth (Zeng et al., 2016). Resiliency has shown to serve “as a protective factor that enables students to adaptively cope with their highly competitive and stressful learning environment and effectively go through

the hardships and obstacles of academic and daily life” (Zeng et al., 2016, p. 11, para. 3). As a result, compared to those students who believe that their intelligence is fixed and unchanging, students with a growth mindset are more likely to engage in schoolwork and have better psychological well-being (Zeng et al., 2016).

Research has also shown that a relationship exists between mindset and empathy. Empathy is an essential element for effective communication, the development of ideas, problem solving, and conflict resolution, and it promotes unity, collaboration, and team work, as it involves active listening and the ability to understand others (Ioannidou & Konstantikaki, 2008). According to Ryazanov and Christenfeld (2018), “children with fixed theories of personality showed less empathy towards peers, and recommended more punishment for a new student behaving badly, and emphasized what a behavior revealed about a person’s good or bad character, while incrementalists focused instead on mediating factors” (p. 34, para. 1). In addition, in comparison with those with a growth mindset, adolescents with a fixed mindset desired more revenge and were shown to be less accepting of limitations of others, as well as their own (Ryazanov & Christenfeld, 2018).

### **Psychological Well-Being**

Although Webster’s dictionary defines well-being as the state of being happy, healthy, or prosperous, there is no formal consensus around one single scholarly definition of well-being (Dodge, Daly, Huyton, & Sanders, 2012). Instead, well-being is typically framed as a construct and is typically referenced in terms of descriptors. According to the Center for Disease Control and Prevention (2016), there is general agreement that “well-being includes the presence of positive emotions and moods (e.g. contentment, happiness, feeling very healthy and full of

energy), the absence of negative emotions (e.g. depression and anxiety), satisfaction with life, fulfillment, and positive functioning” (para. 1).

The origin of the study of well-being comes from hedonic and eudaimonic traditions (Dodge et al., 2012). Well-being dating back to the hedonic tradition refers to happiness, satisfaction with life, positive affect, and low negative affect. In contrast, the eudaimonic tradition of well-being, translated from Aristotle’s idea of eudaimonia, focuses on human development and positive psychological functioning (Dodge et al., 2012). Today, the current view of well-being includes a multi-dimensional construct that includes measures of positive functioning with varying degrees of emphasis on a number of aspects including happiness, life satisfaction, and the ability to fulfil goals (Dodge et al., 2012).

The adoption of positive function in the understanding of well-being was largely in response to the belief that psychiatry had adopted “a restricted view of well-being, seeing it as an absence of distress and dysfunction” (Dodge et al., 2012, p. 225, para. 2). Believing that mental health is ‘a syndrome of well-being symptoms’ related to exhibiting at least one high level symptom of hedonia and more than fifty percent of eudaimonia symptoms, the concepts of flourishing and languishing emerged and have become synonymous with positive psychology (Dodge et al., 2012). The term positive psychology was coined by Martin Seligman and Mihaly Csikszentmihalyi in 1998, and instead of focusing on the treatment of mental illness, it focuses on the study of strengths, virtues, and conditions that allow people to thrive (Seligman, 2012).

### **Positive Psychology**

According to Copeland et al. (2010), “positive psychology emphasizes building human strengths, virtues, and competencies over remediation of negative emotions and mental illness” (p. 26, para. 4). Rather than focusing exclusively on the study and treatment of mental illness and

pathology, positive psychology targets the benefits and potential of emphasizing characteristics including creativity, happiness, hope, interpersonal skills, wisdom, and perseverance (Copeland et al., 2010). Positive psychology is centered on fostering characteristics that provide a “buffer against the onset of mental illness and exacerbation of human suffering” (Copeland et al., 2010, p. 26, para. 5). In addition, it emphasizes the scientific study of optimal human functioning, strength, and resilience (Weller-Clarke, 2006). This philosophy asserts that optimal health and longevity are not necessarily the result of the removal and control of problematic life situations, but rather the focus on human characteristics and their environments (Weller-Clarke, 2006). The pillars of Seligman’s PERMA model, along with theoretical postulates of risk and resilience, prevention science, and social-emotional learning provide the foundational underpinnings of the Child and Adolescent Wellness Scale (CAWS) used in this study (Copeland et al., 2010).

### **Seligman’s PERMA Model**

Seligman developed the PERMA model as a framework and purports that the following five pillars contribute to overall well-being and can be independently defined and measured: Positive Emotions, Engagement, Positive Relationships, Meaning, and Accomplishments (Seligman, Ernst, Gillham, Reivicha, & Linkins, 2009). The first pillar, Positive Emotions, refer to feelings of happiness including joy, cheerfulness, and contentedness, and they are considered beneficial for stretching imagination. People find enjoyment in doing things that interest them, and they are, therefore, more likely to persevere and creatively search for opportunities and solutions to problems (Kern, Waters, Adler, & White, 2015).

Engagement is the second pillar of Seligman’s PERMA model, and it refers to the “psychological connection to activities or organizations, including feeling absorbed, interested, and engaged in life” (Kern et al., 2015, p. 263, para. 5). High levels of engagement are referred

to as ‘flow,’ in which all sense of time is lost through the experience of becoming fully absorbed in an activity (Kern, Benson, Steinern, & Steinberg, 2016). Positive Relationships are the third pillar of Seligman’s model, as they are closely linked with happiness and psychological health. Feeling cared for, supported, socially integrated, and satisfied with social connections are all aspects associated with positive relationships (Kern et al., 2015).

The fourth pillar of Seligman’s PERMA model is Meaning, and it refers to believing and creating value and purpose in life. Having meaning in life involves attaching to or being a part of something bigger than oneself (Kern et al., 2015). Accomplishment is the final pillar of the PERMA model, and it refers to a sense of achievement as progress is made toward goals (Seligman, 2012).

According to Copeland et al. (2010), “the construct of resilience shares many similarities with wellness” (p. 26, para. 6), including initiative, self-efficacy, adaptability, conscientiousness, social competence, and the ability to regulate one’s emotions and form significant relationships. Adolescents who can accomplish difficult tasks, take initiative, regulate emotions with little help, and are sociable and flexible in the face of adversity are likely to be successful. Factors of resilience and risk among children are reflected in the ten dimensions of the Child and Adolescent Wellness Scale (CAWS) and are related to individual and situational characteristics predictive of psychologically healthy adolescents (Copeland et al., 2010).

### **The CAWS - Ten Dimensions**

The ten dimensions of the Child Adolescent and Wellness Scale (CAWS) serve as essential outcomes for health and psychological well-being. The first dimension is adaptability, and it refers to the ability to address challenging situations and respond to change (Copeland et al., 2010; Weller-Clarke, 2006). Connectedness is the second dimension, and it refers to

perceptions of belonging and acceptance at home, school, and in the community; it is considered one of the stronger aspects of resiliency. High connectedness at home and school are considered among the most influential predictors of positive outcomes and strongest protection against harmful behaviors such as substance abuse, violent behavior, depression, and suicidality (Copeland et al., 2010; Weller-Clarke, 2006).

The third dimension of the CAWS is conscientiousness, and it is reported to increase longevity and improve quality of life. It relates to duty and concern for doing what is right as well as taking responsibility for actions and working to the best of one's ability (Copeland et al., 2010; Weller-Clarke, 2006). Emotional Self-Regulation is the fourth dimension, and it refers to the ability to manage feelings and emotion-related cognitive, perceptual, physiological, and interpersonal processes. Regulating emotions is important for impulse control and contributes to success in many behavior domains, particularly social competence (Copeland et al., 2010; Goleman, 1996; Weller-Clark, 2006).

The fifth dimension of the CAWS is empathy, and it refers to the emotional response that individuals feel when they can imagine how another person is feeling; it involves sharing the feelings of another as a means of coming to a direct appreciation of the other (Snyder & Lopez, 2002; Weiner & Auster, 2007). Empathy may be defined as “the action of understanding, being aware of, being sensitive to, and vicariously experiencing the feelings, thoughts, and experience of another of either past or present without having the feelings, thoughts, and experience fully communicated in an objectively explicit manner” (Merriam-Webster's Dictionary, 2018, para. 1). Empathy is associated with psychological health, wellness, and resilience and is considered an important component in positive development evoking altruistic and prosocial behavior (Copeland et al., 2010; Weller-Clark, 2006).



Initiative is the sixth dimension of the Child Adolescent and Wellness Scale (CAWS), and it refers to the power or ability to be motivated from within to take action and direct attention and effort toward a specific challenge or goal (Copeland et al., 2010). It involves motivation, self-determination, enterprise, and engagement, and it is considered an important aspect of resiliency and “a core quality of positive youth development in Western culture” (Copeland et al., 2010, p. 29, para. 1). Mindfulness, also referred to as self-awareness, is the seventh dimension, and it is a key concept in the theory of emotional intelligence postulated by Daniel Goleman (1995). Being aware of one’s internal state of emotions is considered a fundamental component of emotional competence contributing to overall wellness (Weller-Clark, 2006).

Optimism, the eighth dimension of the CAWS, refers to the tendency or disposition to anticipate the best possible outcome and/or to put the most favorable construction upon events or actions; it has important implications for how well individuals cope with stress and adversity in the context of hope and expectations for the future (Carver & Scheier, 2015). When facing challenges, people’s emotional responses range from eagerness, enthusiasm, and excitement to anger, anxiety, and depression. Whereas a pessimist expects bad outcomes, which yield negative feelings, an optimist expects good outcomes, which yield positive emotions and feelings (Carver & Scheier, 2015). As a result, optimism is linked to higher levels of engagement, coping skills, improved adjustment, physical health, perseverance, and achievement, as well as lower levels of disengagement and avoidance (Carver & Scheier, 2015; Copeland et al., 2010; Weller-Clark, 2006). In addition, optimism is related to indicators of better physical health, as it is associated with proactive protective behaviors (Carver & Scheier, 2015).

According to Bandura’s social cognitive theory (Bandura, 1997), self-efficacy, the ninth dimension of the CAWS, refers to the beliefs people hold about their capabilities to yield their

desired outcomes according to their behavior (Weller-Clark, 2006). Over time and through experience, these beliefs are developed and affect physical health, psychological adjustment, vulnerability to emotional distress, and flow as it relates to engagement in a task (Copeland et al., 2010; Weller-Clarke, 2006). Social Competence, the tenth dimension of the CAWS, includes affective, cognitive, and behavioral skills associated with social emotional learning that contribute to successful interpersonal relationships. It refers to the ability to integrate socially acceptable thoughts, feelings, and behaviors according to the environmental context, and it is considered an important predictor of resilience among youth (Copeland et al., 2010; Weller-Clark, 2006).

### **Summary**

American high school students are burdened with the daunting task of building an impressive, robust college resume that will help them stand out and impress admission counselors. This process has led to excessive achievement pressure and has negatively affected relationships and priorities, leaving many students consumed by overwhelming stress and anxiety (Abeles, 2016; Lythcott-Haims, 2016). In addition, the college admission process seems to place a greater focus on test scores and technical skills than on preparing students to become knowledgeable, responsible, caring adults (Guang et al., 2016; Zins et al., 2004). Although the intense focus on resume building activities has yielded a record number of college applications, the process of meeting current college admission criteria has had a significant effect on the education, parenting, health, and psychological well-being of American adolescents today.

As students pursue accolades and high marks of achievement to bolster their college resume in the highly competitive admission environment, the quest to stand out and be recognized as special or superior may promote a fixed mindset that prioritizes success over

growth and performance over learning (Dweck, 2006). The resulting achievement pressure may adversely affect their mental health and psychological well-being. In addition, as students transition from high school to college, many are not prepared or equipped to effectively manage the various demands of academic requirements, extracurricular demands, and social activities, and mental health disorders are on the rise in both number and severity (Cleary et al., 2011).

Although there have been studies that suggest a relationship between mindset and performance as well as fixed mindset and heightened levels of test anxiety (Claro et al., 2016; Trudeau, 2009), research is needed to determine how mindset affects psychological well-being among high achieving college-bound adolescents. Research suggests that mindset can change as a result of awareness and instruction, and students can learn how to adopt and develop a growth mindset (Blackwell et al., 2007). Therefore, this study is relevant because if a positive relationship between growth mindset and psychological well-being exists, it may be possible to decrease unhealthy levels of anxiety and stress among adolescents and promote positive mental health and well-being.

In addition, this study is relevant because it reveals the underlying factors related to the emotional needs of today's adolescents providing teachers, counselors, and school administrators with important information that may influence vision, goals, policies, and instruction. Furthermore, it identifies the need to evaluate and influence current college admission policies and practices to foster improved psychological well-being. The information obtained from this study will be analyzed to generate recommendations for future studies on college bound high school students and the college admission process because colleges and universities are powerfully positioned to influence the values, beliefs, and actions of students, parents, and

organizations they serve. Additionally, this study will assist society, policymakers, and university leaders in determining criteria and processes related to the college admissions process.

In January 2016, the Graduate School of Education at Harvard University released a report titled, ‘Turning the Tide: Inspiring Concern for Others and the Common Good Through College Admissions’ (Common, 2016). The report makes recommendations to reshape the college admission process, reduce excessive achievement pressure, promote greater ethical engagement, and provide economically disadvantaged students with equal opportunity. The report was designed as the first step in a two-year campaign that seeks to substantially reshape the existing college admission process. One of the changes it calls for is categorizing SAT and ACT scores as optional (Common, 2016). The increased awareness generated by current research and Harvard’s “Turning the Tide” report is a revolutionary step in exposing and reshaping the college admission process, and it has been endorsed by over 175 colleges and universities (Common, 2016). Efforts such as these have the potential to alter the current culture of American education as it relates to the college admission process and associated achievement pressure.

The college admission process is powerfully positioned to influence the values, beliefs, and actions of students, parents, schools, and organizations. As a result, considering that emotional intelligence is a more accurate predictor of success than IQ, the current trend could be altered if college admission criteria were established to promote attributes of emotional intelligence such as self-awareness, self-regulation, perseverance, resiliency, emotional stability, empathy, and social skills (Goleman, 1996). Such a shift has the potential to incentivize schools to prioritize the integration of social emotional learning and a learner-centered educational paradigm that promotes growth mindset and higher well-being.

Chapter 1 included an explanation of the background of this quantitative study and outlines the problem statement, purpose, importance of the study, research questions, the theoretical framework, the conceptual hypothesis, and clarification of terms. This chapter presented a review of the relevant literature, which delineates the competitive requirements of the college admission process and its effect on learning, mindset, life experience, and student health and psychological well-being.

Chapter 3 describes the research design and methodology and includes detailed information about participant recruitment and demographics as well as instrumentation, procedures, data collection and recording; it also outlines the data process and analysis including methodological assumptions and limitations. Chapter 4 will present the study's findings and include a discussion of the relationship between mindset and well-being, while Chapter 5 will provide a summary of the entire study and explain the findings in the context of existing research. Conclusions and possible limitations to the current study will be noted, and future research questions and recommendations will be identified for further exploration and study.

## **Chapter 3: Research Design and Methodology**

### **Overview**

This chapter describes the research design and methodology of this study and includes detailed information about participant recruitment and demographics. It also details measurement structures and administration, and data management and analysis, while Chapter 4 presents the study's findings. Chapter 5 provides a summary of the entire study and explains the findings in the context of existing research. Limitations to the current study are also noted in Chapter 5, and future research questions and recommendations are identified for further exploration and study.

The purpose of this quantitative study is to determine the relationship between mindset and psychological well-being among high achieving, college-bound senior students attending private, college-preparatory Christian high schools in Orange County, California. Further, this study is a review of the factors related to applying to college that affect and shape the life experience of these students. Quantitative data are explored to discover relationships and themes related to mindset and psychological well-being so that findings may provide strategies to promote positive, healthier outcomes particularly as they relates to the college admission process.

### **Research Approach and Design**

This quantitative, descriptive, correlational study used a non-experimental survey design because the independent predictor variable (mindset) cannot be manipulated, altered, or controlled, and the research occurred in a real-life setting as opposed to a controlled laboratory environment that is characteristic of an experimental design (Creswell, 2007; Martin & Bridgmon, 2012). Quantitative methods are an appropriate approach for this study because the variables of interest are determined and have been well established in literature as measureable

constructs. A quantitative analysis is best suited to assess the relationship of the variables; in this study, mindset is the independent variable and well-being is the dependent variable.

Quantitative data were analyzed to explore bivariate relationships and themes related to mindset and psychological well-being (Martin & Bridgmon, 2012). This study gathered the following data:

1. The mindset (fixed or growth) of the respondents.
2. The current level of psychological well-being of the respondents according to the Child and Adolescent Wellness Scale (CAWS).
3. Self-reported demographic information including age, gender, weighted cumulative grade point average, parents' level of education, high school financial aid, number of Honors, Advanced Placement, and/or International Baccalaureate courses completed before graduation, SAT and/or ACT scores, information regarding college goals, and total number of applications submitted.

### **Research Questions**

This chapter describes the research methodology and procedures that were applied to achieve the objectives of this study, which is to primarily answer the following research questions:

**RQ1** - To what extent, if any, does a relationship exist between mindset and psychological well-being?

**RQ2** - Do students with a growth mindset have higher well-being compared to students with a fixed mindset after controlling for demographic factors?

In this study, mindset is the independent or predictor variable (X variable), and well-being is the dependent or criterion variable (Y variable), and the following hypotheses reflect the assumptions of the researcher:

**RQ1 Null Hypothesis ( $H_0$ ):** There is no relationship between mindset and psychological well-being among high achieving, college-bound senior students who attend college preparatory private Christian high schools in Orange County, California.

**RQ1 Alternative Hypothesis ( $H_a$ ):** There is a positive relationship between mindset and psychological well-being among high achieving, college-bound senior students who attend college preparatory private Christian high schools in Orange County, California.

**RQ2 Null Hypothesis ( $H_0$ ):** There is no relationship between growth mindset and higher psychological well-being among high achieving, college-bound senior students who attend college preparatory private Christian high schools in Orange County, California compared to those with a fixed mindset after controlling for demographic factors.

**RQ2 Alternative Hypothesis ( $H_a$ ):** There is a positive relationship between growth mindset and higher psychological well-being among high achieving, college-bound senior students who attend college preparatory private Christian high schools in Orange County, California compared to those with a fixed mindset after controlling for demographic factors.

### **Pilot Study**

In an effort to determine the feasibility of the research study before the instructions and proctor script were provided to the respective schools, a pilot study was conducted with a group of eight high school educators who are colleagues of the researcher but are not affiliated with the actual study. Two of the educators served as proctors, and each administered the survey to three



of the educators who served as respondents. After the proctors first read the instructions for the administration of the survey, they read the proctor survey script to the pilot study respondents and monitored the amount of time it took each of the respondents to complete the survey. This provided information that helped determine the approximate average time it would take to complete the survey. As the respondents completed the entire survey on an electronic device, they were asked to note on a sheet of paper any issues they experienced during the survey. Adjustments to the survey were made as necessary based on the feedback provided by the pilot study participants.

### **Subjects**

Quantitative data was collected for this study from convenience samples from five peer private college preparatory Christian high schools in relatively affluent demographic areas in Orange County, California. Based on Tabachnick and Fidell's (2000) equation that an ample sample size equals 104 plus the number of independent variables, this study required at least 105 senior students, ages 18-19 years old. The participating private Christian high schools were affiliated with either the Catholic or Lutheran Churches. By inviting participants from five different schools, a diverse set of participants with various high school experiences provided the responses for a more representative sampling. The study employed a stratified homogeneous sample of high achieving seniors based on the following variables:

- Minimum Age 18
- Minimum ACT Score of 28 or SAT Score of 1200. According to the College Board, students who score a 28 on the ACT score or in the range of 1260 on the SAT score are at the 86<sup>th</sup> percentile or the top 14% of all high school test takers (Hurwitz & Kumar, 2015).

- Successfully completed a minimum of eight Honors and/or Advanced Placement (AP) and/or International Baccalaureate (IB) high school courses during their four years in high school.
- Minimum weighted cumulative grade point average (GPA) of 3.8.

### **Consent Procedures**

The researcher followed all Institutional Review Board (IRB) requirements established by Pepperdine University to protect human subjects, including providing voluntary informed consent and protecting all data before it is shredded and discarded three years from the date it is captured. The study was submitted to IRB and approved as an exempt application (Appendix A), as the subjects are not minors, there is minimal participation risk, and the anticipated survey time for the anonymous questionnaire is less than 45 minutes. Subjects provided informed consent electronically before they had access to begin the questionnaire survey (Appendix B); the consent form notified the participants of the following:

- The study's central purpose.
- The procedures to be used in data collection.
- The known risks and expected benefits for the subjects associated with participation.
- Their protection based on their anonymity in the study, the accessibility of their responses only to the researcher, and the data shared only in aggregate.
- Their right to voluntarily withdraw from the study at any time.

Principals of participating schools were informed that their schools and individual teachers, staff, and students will remain anonymous in any published study based on completion of the results (Creswell, 2013). Because the researcher works at one of the peer schools

participating in this study, none of the participants were informed of the identity or school affiliation of the researcher so that subjects were not vulnerable to coercion or undue influence.

### **Instrumentation**

The process for collecting information for this study included electronic transmission of the Child and Adolescent Wellness Scale, referred to as the CAWS, (Copeland et al., 2017), the Mindset Assessment Profile (Mindset Works, Inc., 2012), and survey questions designed by the researcher to gather demographic information. The Mindset Assessment Profile was used to measure the mindset of the respondents, and responses to eight questions were made on a 6-point Likert-type scale. Using the CAWS to measure well-being, respondents were asked to read and respond to 80 statements on a Likert-type scale based on which one of the following four responses best describes how they see themselves on the day they completed the survey: Strongly Disagree/Not At All Like Me; Disagree/Unlike Me; Agree/Like Me; Strongly Agree/Very Much Like Me.

The CAWS instrument is rooted in the theoretical frameworks of positive psychology, resilience research, and prevention science (Weller-Clark, 2006). From the perspective of positive psychology, mental health is not described in terms of a lack of pathology but rather strengths and positive qualities that can serve as a resource or bulwark for times of distress or illness. Positive psychology is concerned with adaptive qualities and the development of strengths that foster positive healthy outcomes such as altruism, optimism, honesty, happiness, honesty, courage, resilience, and creativity. It is also concerned with well-being, as it relates to feeling accepted, competent, and purposeful (Weller-Clark, 2006).

In terms of resilience research and prevention science, the CAWS instrument includes ten dimensions (adaptability, connectedness, conscientiousness, emotional self-regulation, empathy,

initiative, mindfulness, optimism, self-efficacy, and social competence,) that appear to be in alignment with the qualities identified with resilience and protective dispositions (Weller-Clarke, 2006). In addition, the domains of the instrument serve as essential outcomes for health and psychological well-being. As a result, from the positive psychology perspective that adolescents are people as opposed to potential problems, the CAWS instrument may serve as a preventative measure and intervention tool (Weller-Clarke, 2006).

The CAWS instrument consists of 80 items divided among the following ten domains associated with healthy outcomes experienced by adolescents:

1. Adaptability is considered a critical predictor of happiness in adults and resilience in children and adolescents. Items on the CAWS related to adaptability measure respondents' ability to address challenging situations and respond to change (Copeland et al., 2010; Weller-Clarke, 2006). They have a Cronbach Alpha score of .72, and sample items include:
  - I am open minded.
  - I am prepared for change.
  - I try to find new ways of looking at things.
  - I am agreeable.
2. Connectedness refers to perceptions of belonging and acceptance at home, school, and in the community. It is considered one of the stronger aspects of resiliency, and high connectedness at home and school are considered among the most influential predictors of positive outcomes and strongest protection against harmful behaviors such as substance abuse, violent behavior, depression, and suicidality (Copeland et al., 2010;

Weller-Clarke, 2006). Connectedness items have a Cronbach Alpha score of .79, and sample items include:

- I feel like I belong at school.
- I am cared for and loved.
- I am close to one or both of my parents.

3. Conscientiousness is reported to increase longevity and improve quality of life. It relates to duty and concern for doing what is right as well as taking responsibility for actions and working to the best of one's ability (Copeland et al., 2010; Weller-Clarke, 2006).

Conscientiousness items have a Cronbach Alpha score of .75, and sample items include:

- I blame other people for my problems.
- I care about my health.
- I am dependable.

4. Emotional Self-Regulation refers to the ability to manage feelings and emotion-related cognitive, perceptual, physiological, and interpersonal processes. Regulating emotions is important for impulse control and contributes to success in many behavior domains, particularly social competence (Copeland et al., 2010; Weller-Clark, 2006). Emotional Self-Regulation items have a Cronbach Alpha score of .79, and sample items include:

- I can stop myself when I am going to say something I will regret.
- I can remove myself from a frustrating situation.
- I get upset when others don't see things my way.

5. Empathy is an emotional response that individuals feel when they can imagine how another person is feeling (Snyder & Lopez, 2002).

Merriam-Webster's dictionary (2018) defines empathy as the action of understanding, being aware of, being sensitive to, and vicariously experiencing the feelings, thoughts, and experience of another of either the past or present without having the feelings, thoughts, and experience fully communicated in an objectively explicit manner. (para. 1)

Empathy is included as one of the ten domains in the CAWS instrument, as it associated with psychological health, wellness, and resilience and is considered an important component in positive development evoking altruistic and prosocial behavior (Copeland et al., 2010; Weller-Clark, 2006). Empathy items have a Cronbach Alpha score of .73, and sample items include:

- All people have value.
- I am grateful for what I have.
- I stand up for people who cannot stand up for themselves.

6. Initiative refers to the power or ability to be motivated from within to take action and direct attention and effort toward a specific challenge or goal (Copeland et al., 2010). It involves motivation, self-determination, enterprise, and engagement, and it is considered an important aspect of resiliency and “a core quality of positive youth development in Western culture” (Copeland et al., 2010, p. 29, para. 1). Initiative items have a Cronbach Alpha score of .74, and sample items include:

- I feel comfortable directing others when I have a project in mind.
- I know what I want and how to get it.
- I am passionate about what I do.

7. Mindfulness, also referred to as self-awareness, is a key concept in the theory of emotional intelligence postulated by Daniel Goleman (1995). Being aware of one's internal state of emotions is considered a fundamental component of emotional competence contributing to overall wellness (Weller-Clark, 2006). Items on the CAWS instrument that measure mindfulness elicit responses regarding the individual's self-perception of strengths, weaknesses, and intuition (Copeland et al., 2010). Mindfulness items have a Cronbach Alpha score of .69, and sample items include:

- I know what I am good at and not good at.
- I know what I am feeling at the moment.
- I am aware of how I make other people feel.

8. Optimism refers to the tendency or disposition to anticipate the best possible outcome and/or to put the most favorable construction upon events or actions ("optimism," n.d.). Optimism has important implications for how well individuals cope with stress and adversity in the context of hope and expectations for the future. The CAWS instrument includes optimism as one of the ten domains because it has consistently been linked to improved adjustment, physical health, perseverance, and achievement, (Copeland et al., 2010; Weller-Clark, 2006). Optimism items have a Cronbach Alpha score of .79, and sample items include:

- My problems seem to be never ending.
- It's important to see the humor in things.
- I believe the world holds great promise.

9. Self-Efficacy, according to Bandura's social cognitive theory (Bandura, 1997), refers to

the beliefs people hold about their capabilities to yield their desired outcomes according to their behavior. Over time and through experience, these beliefs are developed and affect physical health, psychological adjustment, vulnerability to emotional distress, and flow, as it relates to engagement in a task (Copeland et al., 2010; Weller-Clarke, 2006).

Self-efficacy items have a Cronbach Alpha score of .76, and sample items include:

- On difficult tasks, I give up.
- Learning new things is fun.
- I am confident and self-assured.

10. Social Competence includes affective, cognitive, and behavioral skills associated with social emotional learning that contribute to successful interpersonal relationships. It refers to the ability to integrate socially acceptable thoughts, feelings, and behaviors according to the environmental context, and it is considered an important predictor of resilience among youth (Copeland et al., 2010; Weller-Clark, 2006). Social Competence items have a Cronbach Alpha score of .72, and sample items include:

- I am respectful of others.
- I enjoy participating in activities with others.
- I am not comfortable sharing my feelings.

The Child and Adolescent Wellness Scale (CAWS) is considered to be a valid and reliable instrument, and each of the ten dimensions has been theorized or shown through research to be uniquely associated with healthy outcomes experienced by adolescents (Copeland et al., 2010; Weller-Clark, 2006). According to Copeland et al., (2010), a study that examined 281 students in grades 6-12 revealed that the psychometric characteristics of the CAWS showed a strong correlation ( $r = .71$ ) with the Multidimensional Student's Life Satisfaction Scale (MSLSS), which



measures happiness or life satisfaction; this result provides criterion validity, and suggests that the 10 dimensions of the CAWS are associated with youth wellness and happiness (Copeland et al., 2010).

## **Procedures**

Study participants completed an electronic cross-sectional survey that assessed students' mindset using the Mindset Assessment Profile (Mindset Works, Inc., 2012) and well-being using the Child and Adolescent Wellness Scale (Copeland et al., 2017). To measure mindset, respondents completed the Mindset Assessment Profile, a short survey that has been used by teachers with thousands of students using the Brainology® classroom curriculum developed by Mindset Works, Inc. The Mindset Assessment Profile contains a sampling of questions from several research-validated scales measuring mindsets about intelligence (Cronbach alpha = .78), learning goals (Cronbach alpha = .73), and beliefs about effort (Cronbach alpha = .79). Respondents were asked to read the following eight statements and respond to each based on a six-point Likert-type scale that rates the level to which they agree or disagree as follows:

Strongly Agree; Agree; Somewhat Agree; Somewhat Disagree; Disagree; Strongly Disagree.

1. No matter how much intelligence you have, you can always change it a good deal.
2. You can learn new things, but you can't really change your basic level of intelligence.
3. I like my work best when it makes me think hard.
4. I like my work best when I can do it really well without too much trouble.
5. I like work that I'll learn from even if I make a lot of mistakes.
6. I like my work best when I can do it perfectly without any mistakes.
7. When something is hard, it just makes me want to work more on it, not less.
8. To tell the truth, when I work hard, it makes me feel as though I'm not very smart.

Statements 2, 4, 6, 8 are fixed mindset questions, and statements 1, 3, 5, 7 reflect growth mindset. According to Dweck (2006), the fixed mindset is concerned with appearance and judgement, whereas the growth mindset is concerned with growth and improvement.

To minimize the possibility of not completing both surveys from the two separate instruments, participants completed one survey created with Google Forms that includes questions from both the Mindset Assessment Profile (Mindset Works, Inc., 2012) and the Child and Adolescent Wellness Scale (Copeland et al., 2017). The survey also included questions to assess demographic information and student academic performance including age, gender, parents' level of education, high school financial aid, self-reported weighted cumulative grade point average, standardized achievement tests (SAT or ACT), number of submitted college applications, and top three college choices. So that no questions were skipped, the survey instrument was designed so that each question requires a response before the respondent could move on to the next screen and/or complete the survey. Students participating in the study were informed of the study objectives and that all individual data is anonymous and will remain private and accessible only to the researcher for research purposes.

### **Data Collection and Recording**

The researcher contacted the five principals of the schools selected for the study by telephone or in person to request permission and assistance in conducting research with their students who meet the study criteria (Appendix C). To limit the burden of filtering students by all of the study criteria, the survey was distributed to all available consenting seniors who were at least 18 years of age. Although only the information from the surveys of those students who meet the study criteria are included in the evaluation data, the principals were informed that they will have access to both the aggregated results of all of their student responses as well as the

results of the entire study as a whole. Information regarding the expectations and timeline of the research study were also provided. Principals who agreed to participate in the study received a follow-up email to confirm participation, and they were provided with a summary of the expectations and study timeline, as well as a school participation consent form (Appendix D).

School administrators assisted with coordinating a time and location on their respective campuses for respondents to complete the electronic survey between April 9-12, 2018. The researcher provided written instructions that outlined the purpose and procedures for administering the surveys (Appendix E). Because of the researcher's affiliation with all of the high schools participating in the study, the researcher did not administer the test in person but instead provided a script to be read to the respondents by the school-designated proctor so as to minimize survey bias (Appendix F). Proctors were instructed to read the script exactly as it is written before the survey link was provided, so students at all five high schools received the same information and completed the survey with the same level of communication and opportunity for understanding.

After the survey script was read to the respondents by the proctor, the survey link was provided to the study population. Respondents completed the survey on an electronic device of their choice. To preserve the integrity of the process and the survey results, access to the link was deactivated at the conclusion of each school's survey timeframe. It was estimated that the survey would take less than 45 minutes to complete including the time necessary to review the consent form and hear the proctor script read; the survey itself took less than 30 minutes to complete. Survey results were electronically available to the researcher upon completion, and only surveys completed by students who met all of the evaluation criteria are included in the research findings.

A report of the aggregated data from each school will be provided to the respective principal along with a summary of the findings of the overall study.

### **Data Process and Analysis**

Data collected in this study was managed and analyzed by the researcher. Computer files store data electronically, and all files are backed up. The anonymity of study participants and the collected school data in aggregate are protected by the use of pseudo names for each school (letters A-E), and a data collection matrix was developed to serve as a visual means of locating information (Creswell, 2013). Data will be archived for three years from the time of collection and then destroyed. Because students at each school site completed the survey questionnaires in a school setting proctored by a school administrator or designated official, the opportunity for response bias was significantly reduced.

To answer the research questions, Pearson's Product Moment Coefficient of Correlation was used to determine relationships among each variable; these variables include mindset scores as the independent or predictor variable (X) and psychological well-being scores as the dependent or criterion variable (Y). The two interval variables are continuously scaled and paired on the participants of this study (Martin & Bridgmon, 2012). The alpha level was set at  $p = .05$ , though findings at  $p = .10$  were noted as a potential trend for future research. The study controlled for demographics including age, gender, ethnicity, grade point average (GPA), parents' level of education, high school financial aid, number of honors and Advanced Placement (AP) or International Baccalaureate (IB) courses, minimum ACT and/or SAT scores, and number of applications submitted to college. To ensure internal validity within the study, the instruments selected to capture data are recognized as valid and reliable.

## **Methodological Assumptions**

The following assumptions apply to this study:

- Parents who send their children to the private Christian high schools in this study are willing to pay tuition or determine a solution to cover the cost of the tuition. As a result, it is assumed that these parents believe that private education provides better education with ample quality resources and greater opportunities for success, including admission to four-year colleges and universities.
- Private Christian high schools in Orange County, California generally attract students with parents who have the financial means to pay for the cost of tuition. However, they also attract talented student athletes who may come from an economically depressed environment and are eligible for significant financial aid. Parents of these students believe that their children are better positioned for college sports opportunities, and they pursue financial support from the school and other avenues to pay for tuition.
- Schools in this study promote matriculation to four-year colleges and universities and consider the results of their graduates' college admissions as a metric in the measurement of their overall school success.
- Competition and achievement pressure among students attending these schools are significant, especially for those students who have completed or are currently enrolled in at least two honors level and/or Advanced Placement (AP) or International Baccalaureate (IB) courses and are earning a cumulative weighted academic grade point average of 3.8 or higher.

## **Limitations**

The research in this study was limited to the collection of data from five private, college-preparatory Christian high schools in Orange County, California. All five schools have college matriculation rates consistently above 90%, and a large number of their students apply to highly selective colleges and universities each year. One of the five schools has an enrollment of all female students, and one has an enrollment of all male students. Data was gathered during the second semester of their senior year when college applications have been submitted, and students are waiting to receive notification regarding their acceptance. As a result, this cross-sectional study only provides a snapshot into the life of a high school student during his/her senior year. Further study across various times throughout all four years of high schools might provide a broader perspective of how mindset affects psychological well-being. The surveys were completed at the subjects' respective high school sites, which may have influenced and had an effect on the subjects' affect and therefore their responses.

Although the schools in this study are located in or near affluent communities in Orange County, it is possible that not all of the students attending the selected schools are from affluent families and/or live in close proximity to their school; the subjects in this study were not selected based on their family income or socioeconomic status. In addition, it is possible that not all of the students are required to pay the same amount of tuition as determined by financial need and/or the desire of the school to retain the student regardless of financial means. The study was limited to the demographic information of each participant, preventing national inference. As a result, the findings of this research are not necessarily representative of the majority of students attending private Christian high schools in the United States.

There are a number of factors related to psychological well-being, but this study is primarily focused on how it is affected by mindset in relation to achievement and the college admissions process. Demographic information, grade point averages, parents' level of education, high school financial aid, standardized achievement scores (ACT and SAT), and number of college applications submitted will be self-reported. The instruments used to gather data for this study include the Mindset Assessment Profile (Mindset Works, Inc., 2012) and the Child and Adolescent Wellness Scale (Copeland et al., 2017); both will reflect self-reported scores.

### **Summary**

This chapter describes the research design and methodology to determine the relationship between mindset and psychological well-being among high achieving, college-bound senior students attending private, college-preparatory Christian high schools in Orange County, California. It also includes detailed information about participant recruitment and demographics as well as instrumentation, procedures, data collection and recording, data process and analysis, and methodological assumptions and limitations.

Chapter 4 presents the study's findings and include a discussion of the relationship between mindset and psychological well-being, and chapter 5 summarizes the study's findings in the context of existing research. Conclusions and possible limitations to the current study are noted, and future research questions and recommendations are identified for further exploration and study.

## Chapter 4: Results

### Overview

The purpose of this quantitative study was to determine the relationship between mindset and psychological well-being among high achieving, college-bound senior students attending private, college-preparatory Christian high schools in Orange County, California. Further, this study reviewed the factors related to applying to college that affect and shape the life experience of these students. Survey data were gathered from 123 college-bound seniors to complete the study.

Table 1 has the frequency counts for the following demographic variables in the study: gender, race, ACT and/or SAT scores, weighted cumulative grade point average, number of colleges applied to, mother/guardian's level of education, and father/guardian's level of education. Table 2 has the ratings of the Mindset Assessment Profile items sorted by highest mean. Table 3 has the psychometric characteristics for the summated growth mindset and the following ten child and adolescent wellness scale scores: adaptability, initiative, mindfulness, conscientiousness, optimism, connectedness, emotional self-regulation, empathy, self-efficacy, and social competence.

Table 4 represents the Pearson correlations for the child and adolescent wellness scale scores with the growth mindset scale score to answer Research Question One (RQ1). Also, in Table 4 are the partial correlations for the ten child and adolescent wellness scale scores with the growth mindset scale score controlling for seven demographic variables to answer Research Question Two (RQ2). As additional findings, Tables 5–11 have the Pearson correlations for the child and adolescent wellness scale scores with the seven demographic variables from Research Question Two: race, weighted cumulative grade point average (GPA), number of colleges



applied to, mother/guardian education, father/guardian education, high school financial aid, and gender, respectively.

### **Description of the Sample**

Table 1 has the frequency counts for the demographic variables in the study. Five different college-preparatory, private Christian high schools in Orange County, California were represented by the 18-year old senior students in the study, with two schools represented by 20 students (16.3%) and one represented by 31 students (25.2%). There were 70 male students (56.9%) and 53 female students (43.1%). Most were white (67.5%) or identified as multiracial (15.4%).

Most students performed best on either reading/writing (51.2%) or math (31.7%) on their ACT or SAT. Their weighted cumulative grade point average ranged from 3.80 to 4.86 ( $M = 4.28$  and  $SD = 0.29$ ). Most students applied to either 6-10 (39.0%) or 15-20 colleges (31.7%) with a median of eight colleges.

Their parents were well-educated, with most mother/guardian's education as a bachelor's degree (46.3%) or a graduate degree (27.6%), and most father/guardian's education as a bachelor's degree (37.4%) or graduate degree (35.8%). Most students did not receive financial aid to attend school (73.2%), and most were categorized as having a growth mindset (61.8%) as opposed to a fixed mindset (38.2%; Table 1).

Table 1

*Frequency Counts for Selected Variables (N = 123)*

Variable	Category	<i>n</i>	%
School	A	20	16.3
	B	23	18.7
	C	20	16.3
	D	31	25.2
	E	29	23.6
Gender	Male	70	56.9
	Female	53	43.1
Race	Asian/Pacific Islander	9	7.3
	Hispanic/Latino	9	7.3
	Multiracial	19	15.4
	White/Caucasian	83	67.5
	Other	3	2.5
Core Subject Highest Score ACT/SAT	Math	39	31.7
	Reading/Writing	63	51.2
	Science	9	7.3
	Multiple Sections Highest	12	9.8
GPA <sup>a</sup>	3.80 to 3.99	26	21.0
	4.00 to 4.24	27	21.8
	4.25 to 4.49	38	30.6
	4.50 to 4.86	32	25.8

Note. <sup>a</sup> GPA:  $M = 4.28$ ,  $SD = 0.29$ .

(continued)

Variable	Category	<i>n</i>	%
Number of Colleges Applied To <sup>b</sup>	1-5	25	20.3
	6-10	48	39.0
	15-20	39	31.7
	16-20	10	8.1
	More than 20	1	0.8
Mother/Guardian Education	No High School Diploma	1	0.8
	High School Diploma	9	7.3
	Some College	14	11.4
	Associate's Degree or Vocational School	5	4.1
	I don't know	3	2.4
	Bachelor's Degree	57	46.3
	Graduate Degree	34	27.6
Father/Guardian Education	No High School Diploma	5	4.1
	High School Diploma	6	4.9
	Some College	13	10.6
	Associate's Degree or Vocational School	5	4.1
	I don't know	4	3.3
	Bachelor's Degree	46	37.4
	Graduate Degree	44	35.8

<sup>b</sup> *Mdn* = 8 colleges.

Variable	Category	<i>n</i>	%
High School Financial Aid	Yes	33	26.8
	No	90	73.2
Growth Mindset	Fixed	47	38.2
	Growth	76	61.8

Table 2 has the ratings of the Mindset Assessment Profile items sorted by highest mean. These ratings were given using a six-point metric: 1 = *Disagree A Lot* to 6 = *Agree A Lot*. The highest level of agreement was for “No matter how much intelligence you have, you can always change it a good deal ( $M = 4.28, SD = 1.23$ )” and “I like work that I will learn from even if I make a lot of mistakes ( $M = 4.23, SD = 1.34$ ).” The lowest level of agreement was for the reverse scored item “I like my work best when I can do it really well without too much trouble ( $M = 2.64, SD = 1.17$ )” (Table 2).

Table 2

*Ratings of Mindset Assessment Profile Items Sorted by Highest Mean (N = 123)*

Item	<i>M</i>	<i>SD</i>
No matter how much intelligence you have, you can always change it a good deal.	4.28	1.23
I like work that I will learn from even if I make a lot of mistakes.	4.23	1.34
I like my work best when it makes me think hard.	4.20	1.23
Reversed - To tell the truth, when I work hard, it makes me feel as though I'm not very smart.	4.15	1.43
When something is hard, it just makes me want to work more on it, not less.	3.94	1.36
Reversed - You can learn new things, but you cannot really change your basic level of intelligence.	3.41	1.35
Reversed - I like my work best when I can do it perfectly without any mistakes.	2.76	1.34
Reversed - I like my work best when I can do it really well without too much trouble.	2.64	1.17

*Note.* Ratings based on a six-point metric: 1 = *Disagree a lot* to 6 = *Agree a lot*. Some ratings were reverse scored because “Disagree a lot” was the most favorable answer.

Table 3 has the psychometric characteristics for the summated growth mindset and child and adolescent wellness scale scores. The Cronbach's  $\alpha$  coefficient for the growth mindset scale score was  $\alpha = .40$ , and the Cronbach's  $\alpha$  coefficients for the child and adolescent wellness scale scores ranged from  $\alpha = .58$  to  $\alpha = .78$  with a median  $\alpha = .69$  (Table 3).

Table 3

*Psychometric Characteristics for Summated Growth Mindset and Child and Adolescent Wellness Scale Scores (N = 123)*

Score	Number of Items	<i>M</i>	<i>SD</i>	Low	High	$\alpha$
Growth Mindset Scale	8	29.61	4.59	18.00	39.00	.40
Adaptability	8	3.10	0.36	2.13	4.00	.67
Initiative	8	3.15	0.41	2.13	4.00	.75
Mindfulness	8	3.11	0.36	2.13	4.00	.60
Conscientiousness	8	3.22	0.35	2.38	4.00	.58
Optimism	8	3.08	0.40	1.88	4.00	.69
Connectedness	8	3.22	0.44	1.75	4.00	.78
Emotional Self-Regulation	8	2.74	0.40	1.63	4.00	.63
Empathy	8	3.26	0.42	1.75	4.00	.77
Self-Efficacy	8	3.23	0.38	2.13	4.00	.70
Social Competence	8	3.23	0.38	2.25	4.00	.69

## **Answering the Research Questions**

Research Question One was, “To what extent, if any, does a relationship exist between mindset and psychological well-being?” and the related null hypothesis was  $H_0$ : “There is no relationship between mindset and psychological well-being among high achieving, college-bound senior students who attend college preparatory private Christian high schools in Orange County, California.” To answer this, Table 4 has the Pearson correlations for the ten child and adolescent wellness scale scores with the growth mindset scale score. Growth mindset was positively correlated with one of the ten child and adolescent wellness scale scores. Specifically, higher scores of growth mindset were related to higher scores for optimism ( $r = .20$ ,  $p = .02$ ), providing support to reject the null hypothesis for Research Question One (Table 4).

Table 4

*Correlations for Child and Adolescent Wellness Scale Scores with Growth Mindset*

*Scale Score (N = 123)*

Variable	Growth Mindset <sup>a</sup>	Growth Mindset <sup>b</sup>
Adaptability	.10	.22 *
Initiative	.04	.17
Mindfulness	-.05	.04
Conscientiousness	.13	.23 *
Optimism	.20 *	.25 **
Connectedness	.03	.08
Emotional Self-Regulation	.16	.25 **
Empathy	.04	.10
Self-Efficacy	.15	.28 ***
Social Competence	-.04	.07

*Note.* \*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .005$ . \*\*\*\*  $p < .001$ .

<sup>1</sup> Research Question One – Pearson Correlations.

<sup>2</sup> Research Question Two – Partial Correlations, Controlling for Race, GPA, Number of Colleges Applied To, Mother/Guardian Education, Father/Guardian Education, High School Financial Aid, and Gender.

Research Question Two was, “To what extent, if any, does a relationship exist between mindset and psychological well-being after controlling for demographic factors?” and the related null hypothesis was  $H_0$ : “There is no relationship between mindset and psychological well-being among high achieving, college-bound senior students who attend college preparatory private Christian high schools in Orange County, California after controlling for demographic factors.” To answer this, Table 4 has the partial correlations for the ten child and adolescent wellness scale scores with the growth mindset scale score, controlling for seven variables: race, weighted cumulative grade point average (GPA), number of colleges applied to, mother/guardian education, father/guardian education, high school financial aid, and gender. Growth mindset was

positively correlated with five of the ten child and adolescent wellness scale scores. Specifically, higher scores of growth mindset were related to higher scores for adaptability ( $r_{ab,c} = .22, p = .02$ ), conscientiousness ( $r_{ab,c} = .23, p = .01$ ), optimism ( $r_{ab,c} = .25, p = .008$ ), emotional self-regulation ( $r_{ab,c} = .25, p = .007$ ), and self-efficacy ( $r_{ab,c} = .28, p = .002$ ). This combination of findings provided support to reject the null hypothesis for Research Question Two (Table 4).

Table 4

*Correlations for Child and Adolescent Wellness Scale Scores with Growth Mindset*

*Scale Score (N = 123)*

Variable	Growth Mindset <sup>a</sup>	Growth Mindset <sup>b</sup>
Adaptability	.10	.22 *
Initiative	.04	.17
Mindfulness	-.05	.04
Conscientiousness	.13	.23 *
Optimism	.20 *	.25 **
Connectedness	.03	.08
Emotional Self-Regulation	.16	.25 **
Empathy	.04	.10
Self-Efficacy	.15	.28 ***
Social Competence	-.04	.07

*Note.* \*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .005$ . \*\*\*\*  $p < .001$ .

<sup>1</sup> Research Question One – Pearson Correlations.

<sup>2</sup> Research Question Two – Partial Correlations, Controlling for Race, GPA, Number of Colleges Applied To, Mother/Guardian Education, Father/Guardian Education, High School Financial Aid, and Gender.



## Additional Findings

Tables 5 through 11 display the Pearson correlations for the ten child and adolescent wellness scale scores with seven variables: race, weighted cumulative grade point average (GPA), number of colleges applied to, mother/guardian education, father/guardian education, high school financial aid, and gender. For the resulting 70 correlations, three were significant at the  $p < .05$  level. Higher numbers of colleges applied to were related to lower conscientiousness scores ( $r = -.23, p = .01$ ; Table 7), while those receiving high school financial aid was related to higher levels of conscientiousness scores ( $r = -.19, p = .04$ ; Table 10). In addition, more earned education by the father/guardian was related to higher social competence scores ( $r = .18, p = .04$ ; Table 9).

Table 5

*Correlations for Child and Adolescent Wellness Scale Scores with White (N = 123)*

Variable	White <sup>a</sup>
Adaptability	-.14
Initiative	-.10
Mindfulness	-.13
Conscientiousness	-.05
Optimism	.04
Connectedness	.06
Emotional Self-Regulation	-.01
Empathy	.02
Self-Efficacy	-.08
Social Competence	-.09

*Note.* \*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .005$ . \*\*\*\*  $p < .001$ .

<sup>a</sup> Coding: 0 = No 1 = Yes

Table 6

*Correlations for Child and Adolescent Wellness Scale Scores with GPA (N = 123)*

Variable	GPA
Adaptability	-.14
Initiative	-.02
Mindfulness	-.06
Conscientiousness	.03
Optimism	.05
Connectedness	-.05
Emotional Self-Regulation	-.11
Empathy	-.12
Self-Efficacy	.13
Social Competence	-.10

*Note.* \*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .005$ . \*\*\*\*  $p < .001$ .

Table 7

*Correlations for Child and Adolescent Wellness Scale Scores with Number of Colleges*

*Applied To (N = 123)*

Variable	Colleges Applied To
Adaptability	.06
Initiative	.02
Mindfulness	.03
Conscientiousness	-.23 **
Optimism	-.13
Connectedness	-.11
Emotional Self-Regulation	-.11
Empathy	-.10
Self-Efficacy	-.03
Social Competence	-.07

*Note.* \*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .005$ . \*\*\*\*  $p < .001$ .

Table 8

*Correlations for Child and Adolescent Wellness Scale Scores with Mother/Guardian*

*Education (N = 123)*

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Variable	Mother/Guardian Education
Adaptability	-.08
Initiative	.00
Mindfulness	-.09
Conscientiousness	-.04
Optimism	-.07
Connectedness	.14
Emotional Self-Regulation	-.14
Empathy	.02
Self-Efficacy	.02
Social Competence	.06

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*Note.* \*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .005$ . \*\*\*\*  $p < .001$ .

Table 9

*Correlations for Child and Adolescent Wellness Scale Scores with Father/Guardian*

*Education (N = 123)*

Variable	Father/Guardian Education
Adaptability	.01
Initiative	.06
Mindfulness	.01
Conscientiousness	.03
Optimism	.04
Connectedness	.10
Emotional Self-Regulation	-.13
Empathy	.05
Self-Efficacy	.03
Social Competence	.18 *

*Note.* \*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .005$ . \*\*\*\*  $p < .001$ .

Table 10

*Correlations for Child and Adolescent Wellness Scale Scores with High School Financial*

*Aid (N = 123)*

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Variable	High School Financial Aid <sup>a</sup>
Adaptability	-.10
Initiative	-.08
Mindfulness	-.04
Conscientiousness	-.19*
Optimism	-.05
Connectedness	-.13
Emotional Self-Regulation	-.13
Empathy	-.11
Self-Efficacy	-.10
Social Competence	-.12

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*Note.* \*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .005$ . \*\*\*\*  $p < .001$ .

<sup>a</sup> Coding: 1 = *Yes* 2 = *No*

Table 11

*Correlations for Child and Adolescent Wellness Scale Scores with Gender (N = 123)*

Variable	Gender <sup>a</sup>
Adaptability	.00
Initiative	-.07
Mindfulness	-.01
Conscientiousness	-.12
Optimism	.01
Connectedness	-.07
Emotional Self-Regulation	.09
Empathy	-.10
Self-Efficacy	.01
Social Competence	-.07

*Note.* \*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .005$ . \*\*\*\*  $p < .001$ .

<sup>a</sup> Coding: 1 = Male 2 = Female

## **Summary**

In summary, the purpose of this study was to determine the relationship between mindset and psychological well-being for a sample of 123 high achieving, college-bound senior students attending private, college-preparatory Christian high schools in Orange County, California, and to review the factors related to applying to college that affect and shape the life experience of these students. Both Hypothesis One (mindset and psychological well-being) and Hypothesis Two (mindset and psychological well-being, controlling for demographic factors) were supported (Table 4). In the final chapter, these findings will be compared to the literature, conclusions and implications will be drawn, and a series of recommendations will be suggested.



## **Chapter 5: Discussion**

### **Overview**

This chapter provides a summary of the entire study and explains the findings in the context of existing research. Limitations to the current study are also noted, and future research questions and recommendations are identified for further exploration and study.

The purpose of this quantitative study is to determine the relationship between mindset and psychological well-being among high achieving, college-bound students attending private, college-preparatory Christian high schools in Orange County, California. Further, this study is a review of the factors related to applying to college that affect and shape the life experience of these students. The quantitative data from this study reveal the relationships and themes related to mindset and psychological well-being and offer insight and strategies that may promote positive, healthier outcomes as it relates to the college admission process as well as topics for future study.

Believing that a college education provides the best opportunities and outcomes for all students, the focus on college admission strongly influences parenting practices and dominates nearly every aspect of the high school experience. Today's adolescents are burdened with the daunting task of building an impressive, robust resume that will help them stand out and impress college admission counselors. This process generates excessive achievement pressure and negatively affects relationships and priorities leaving many students consumed by overwhelming stress and anxiety. Although the intense focus on resume building activities and lists of accomplishments have yielded a record number of college applications and acceptances, the unintended consequences of current admission criteria have significantly impacted the health and psychological well-being of American adolescents.

As students transition from high school to college, many are ill-prepared and unequipped to effectively manage the various demands of academic requirements, extracurricular responsibilities, and social activities, and mental health disorders are on the rise in both number and severity (Cleary et al., 2011). An extreme focus on exceptional grades in the most rigorous courses possible along with impressive accomplishments on an extensive list of extracurricular activities has left many students exhausted, discouraged, and stressed with little time to identify strengths, discover and develop passions, and cultivate real-world life skills. In addition, in an effort to stand out in the college admission process, achievement and performance standards designed to garner high profile status are often prioritized above learning and growth. As a result, heightened achievement pressure has significantly impacted student health and psychological well-being and has produced the most anxious, stressed, and sleep-deprived generation ever (Jones & Ginsberg, 2006).

The significant amount of time and the high degree of effort that are required by students, coupled with the stressful nature and uncertainty of the challenging college admission process provide a rich opportunity to study the relationship between high school students' mindset and their psychological well-being. Mindset refers to a mental attitude or disposition that predetermines how a person responds to and interprets situations, and it affects the way students perceive their academic world (Zeng et al., 2016). Also known as implicit theory of intelligence, mindset refers to the core assumptions that people hold about themselves in relation to the malleability of their personal qualities such as ability and personality (Heslin et al., 2005). In this model, people hold different theories of intelligence that range from a more unchangeable entity theory, referred to as fixed mindset, to a more incremental theory known as growth mindset, whereby intelligence is more malleable and can grow (Blackwell et al., 2007). How intelligence

is perceived influences aspects of self-regulation, levels and resilience of self-efficacy, and how people respond to academic challenges and perform on complex tasks (Heslin et al., 2005).

Mindset also affects the way students view school and education. Whereas success in terms of a fixed mindset is based on being validated and appearing smart, success from the growth mindset perspective is based on being stretched by learning something new and becoming smarter (Dweck, 2006). In this concept, a fixed mindset views a bad grade as failure and therefore a setback, whereas a growth mindset views failure in terms of a lack of growth or not reaching one's potential (Dweck, 2006). Although the original intent of formal education is designed to foster the process of learning and principles that emphasize development through learning goals and mastery-oriented responses, the measurement focus inherent in the college admission process promotes fixed mindset principles including performance goals that may elicit a helpless response pattern. As a result, growth mindset promotes learning while "fixed mindset makes people into non-learners" (Dweck, 2006, p. 18, para. 3).

Research shows that mindset has an effect on academic behaviors and student outcomes (Blackwell et al., 2007; Zeng et al., 2016). Growth mindset leads to greater academic engagement as well as higher grades and test scores (Zeng et al., 2016). In addition, because mindset "fosters particular judgments and reactions, it can lead to relatively consistent patterns of vulnerability or resilience over time" (Yeager & Dweck, 2012, p. 304, para. 2). As a result, the incremental theories of intelligence and growth mindset have been shown to promote learning and resilience, as challenges are viewed as opportunities to improve learning skills and abilities (Zeng et al., 2016).

A number of studies have focused on the relationship between mindset and achievement as well as the relationship between fixed mindset and heightened levels of test anxiety (Claro et

al., 2016; Trudeau, 2009), but there has been little research focused on the relationship between mindset and psychological well-being. This study adds to the current body of research knowledge related to implicit theories of intelligence, mindset, adolescent psychological well-being, and social emotional learning, which includes the following ten dimensions measured in the Child and Adolescent Wellness Scale (CAWS): adaptability, connectedness, conscientiousness, emotional self-regulation, empathy, initiative, mindfulness, optimism, self-efficacy, and social competence.

This study is relevant because it reveals the underlying factors related to the emotional needs of today's adolescents, providing teachers, counselors, and school administrators with important information that may influence vision, goals, policies, and instruction. Furthermore, it identifies the need to evaluate current college admission policies and practices to foster psychological well-being among college bound students, and it has the potential to assist policymakers and university leaders in determining criteria and processes related to the college admission process. Finally, this study is relevant because research suggests that mindset can change as a result of awareness and instruction, and students can learn how to adopt and develop a growth mindset, which can positively affect their psychological well-being (Blackwell et al., 2007).

### **Re-Statement of the Problem**

Studies shows that mindset has an effect on how students approach and respond to challenges and setbacks (Dweck, 2006, 2009). In addition, research reflects that stress and anxiety among adolescents have grown to epidemic proportions and is significantly affecting their mental health and psychological well-being (APA, 2013). The emphasis on performance for the express purpose of building a robust resume to stand out in the college admission process can

lead to excessive achievement pressure that may promote a fixed mindset and affect students' mental health and psychological well-being.

### **Research Approach and Design**

This quantitative, descriptive, correlational study used a non-experimental survey design because the independent predictor variable (mindset) cannot be manipulated, altered, or controlled, and the research occurred in a real-life setting as opposed to a controlled laboratory environment that is characteristic of an experimental design (Creswell, 2007; Martin & Bridgmon, 2012). Quantitative methods are an appropriate approach for this study because the variables of interest can be determined and have been well established in literature as measureable constructs. A quantitative analysis is best suited to assess the relationship of the variables; in this study, mindset is the independent variable and well-being is the dependent variable. A non-experimental survey design capturing data via an electronic survey provided correlational information to address the research questions.

Quantitative data was analyzed to explore bivariate relationships, partial correlations, and themes related to mindset and psychological well-being (Martin & Bridgmon, 2012). This study gathered the following data:

1. The mindset (fixed or growth) of the respondents.
2. The current level of psychological well-being of the respondents.
3. Self-reported demographic information including age, gender, weighted cumulative grade point average, mother/guardian's level of education, father/ guardian's level of education high school financial aid, number of Honors, Advanced Placement (AP), International Baccalaureate (IB) courses completed by graduation, SAT and/or ACT scores, information regarding college goals, and total number of college applications submitted.

## **Research Questions**

The following research questions and hypotheses guided this study:

**Research Question One (RQ1)** - To what extent, if any, does a relationship exist between mindset and psychological well-being?

**RQ1 Null Hypothesis ( $H_0$ ):** There is no relationship between mindset and psychological well-being among high achieving, college-bound senior students who attend college preparatory private Christian high schools in Orange County, California.

**RQ1 Alternative Hypothesis ( $H_a$ ):** There is a positive relationship between mindset and psychological well-being among high achieving, college-bound senior students who attend college preparatory private Christian high schools in Orange County, California.

**Research Question Two (RQ2)** - Do students with a growth mindset have higher psychological well-being compared to students with a fixed mindset after controlling for demographic factors?

**RQ2 Null Hypothesis ( $H_0$ ):** There is no relationship between growth mindset and higher psychological well-being among high achieving, college-bound senior students who attend college preparatory private Christian high schools in Orange County, California compared to those with a fixed mindset after controlling background characteristics.

**RQ2 Alternative Hypothesis ( $H_a$ ):** There is a positive relationship between growth mindset and higher psychological well-being among high achieving, college-bound senior students who attend college preparatory private Christian high schools in Orange County, California compared to those with a fixed mindset after controlling demographic factors.

## **The Findings Related to the Hypothesis**

Of the 348 survey respondents from the five private parochial schools, 123 met the specific criteria used to determine the high achieving student population for this study and satisfied the minimum number required for an adequate sample size. It is assumed that the respondents answered in an honest, accurate, conscientious, and serious manner; however, it is important to note that the survey was conducted within the last six weeks of their senior year in high school after college applications had been submitted. As a result, it is possible that some of the respondents may not have taken the survey as seriously as desired and therefore did not provide thoughtful responses. In addition, considering the emphasis on presenting a positive image in the development of a pristine profile, it is possible that some of the students may have responded to survey questions based on their attempt to preserve their desired image or perceptions of what their school administrator and/or researcher expected.

The results of this study reveal that there is a significant relationship between mindset and psychological well-being among high achieving, college-bound senior students who attend college preparatory, private Christian high schools in Orange County, California. Specifically, growth mindset was positively correlated with optimism ( $r = .20, p = .02$ ), one of the ten dimensions of the Child and Adolescent Wellness Scale (CAWS), which provides support to reject the null hypothesis for the Research Question One (RQ1). Optimism refers to the tendency or disposition to anticipate the best possible outcome and/or to put the most favorable construction upon events or actions; it has important implications for how well individuals cope with stress and adversity in the context of hope and expectations for the future (Carver & Scheier, 2015). When facing challenges, people's emotional responses range from eagerness, enthusiasm, and excitement to anger, anxiety, and depression. Whereas a pessimist expects bad

outcomes, which yield negative feelings, an optimist expects good outcomes, which yield positive emotions and feelings (Carver & Scheier, 2015). Optimism is linked to higher levels of engagement, coping skills, improved adjustment, physical health, perseverance, and achievement, as well as lower levels of disengagement and avoidance (Carver & Scheier, 2015; Copeland et al., 2010; Weller-Clark, 2006). In addition, optimism is related to indicators of better physical health, as it is associated with proactive protective behaviors (Carver & Scheier, 2015). Consequently, the results of this study support findings from existing research.

This study also reveals that there is a positive significant correlation between growth mindset and psychological well-being after controlling for the following seven variables: race, weighted cumulative grade point average (GPA), number of colleges applied to, mother/guardian's education, father/guardian's education, high school financial aid, and gender. Growth mindset was positively correlated with five of the ten child and adolescent wellness scale scores as follows: adaptability ( $r_{ab.c} = .22, p = .02$ ), conscientiousness ( $r_{ab.c} = .23, p = .01$ ), optimism ( $r_{ab.c} = .25, p = .008$ ), emotional self-regulation ( $r_{ab.c} = .25, p = .007$ ), and self-efficacy ( $r_{ab.c} = .28, p = .002$ ). This combination of findings provided support to reject the null hypothesis for Research Question Two (RQ2; Table 4).

These findings are in alignment with Carol Dweck's research on mindset and the philosophy of positive psychology as postulated by Martin Seligman. Dweck's research focuses on patterns of behavior that may be caused by personal views referred to as mindset. Two types of behavior patterns that were identified and researched extensively by Dweck include the helpless response and mastery-oriented response patterns (Diener & Dweck, 1978, 1980; Dweck, 1975, 1976; Dweck & Reppucci, 1973). Whereas the helpless response pattern was characterized by avoidance of challenges and deteriorating performance when facing obstacles, the mastery-



oriented response was characterized by embracing challenges and persistence and resiliency when faced with obstacles (Dweck & Leggett, 1988). These response patterns were found to be correlated with a person's orientation of goals rather than their skills and abilities. Those who were focused primarily on demonstrating competency exhibited a helpless response pattern, while those with a mastery-oriented response pattern focused on goals that were primarily directed toward learning and increasing competency (Dweck & Leggett, 1988; Elliott & Dweck, 1988).

Dweck's research subsequently led to a study on the implicit theories of intelligence referred to as fixed and growth mindset. Those with a fixed mindset believe that their intellect and abilities are fixed and unable to grow or diminish, and they typically possess performance-oriented goals. Those with a growth mindset believe that their intellect and abilities can grow through study, learning, effort, and persistence, and they typically possess learning-oriented goals (Elliott & Dweck, 1988).

The correlation between mindset and respective response patterns provides a conceptual framework for this study and can be viewed in relation to Seligman's philosophy of positive psychology. Rather than viewing wellness in terms of an absence of pathology or mental illness, Seligman emphasizes the scientific study of optimal human functioning, strength, and resilience (Weller-Clarke, 2006). This philosophy asserts that optimal health and longevity are not necessarily the result of the removal and control of problematic life situations but rather the focus on human characteristics and their environments (Weller-Clarke, 2006). The Child and Adolescent Wellness Scale (CAWS) utilized in this study reveals adaptive qualities for adolescents by identifying and assessing their strengths, competencies, and capacities across ten domains for positive healthy outcomes. This study revealed growth mindset was positively

correlated with the following five CAWS scores and is described below: adaptability, conscientiousness, optimism, emotional self-regulation, and self-efficacy.

Growth mindset was positively correlated with adaptability ( $r_{ab.c} = .22, p = .02$ ), which refers to the ability to address challenging situations and respond to change, and it is considered a critical predictor of happiness in adults and resilience in children and adolescents (Copeland et al., 2010; Weller-Clarke, 2006). Sample items on the CAWS used to determine adaptability scores include:

- I am open minded.
- I am prepared for change.
- I try to find new ways of looking at things.
- I am agreeable.

According to Copeland et al., (2010), “the construct of resilience shares many similarities with wellness” (p. 26, para. 6), and factors of resilience are related to individual and situational characteristics predictive of psychologically healthy adolescents (Copeland et al., 2010).

Resiliency has shown to serve “as a protective factor that enables students to adaptively cope with their highly competitive and stressful learning environment and effectively go through the hardships and obstacles of academic and daily life” (Zeng et al., 2016, p. 11, para. 3). Those with a growth mindset are more likely to bounce back from setbacks in academic and learning tasks, and they demonstrate persistence and resilience as they reach, stretch, and struggle with challenges, viewing success in terms of their learning and growth (Zeng et al., 2016).

According to Yeager and Dweck (2012), “resilient may refer to any behavioral, attributional, or emotional response to an academic or social challenge that is positive and beneficial for development (such as seeking new strategies, putting forth greater effort, or

solving conflicts peacefully” (p. 303, para. 4). In contrast, that which is not resilient may be characterized as “any response to a challenge that is negative or not beneficial for development, such as helplessness, giving up, cheating, or aggressive retaliation” (Yeager & Dweck, 2012, p. 303, para. 4). Because students with a fixed mindset view success as an absence of failure and therefore avoid exposing their deficiencies, they are more likely to give up and are therefore less resilient (Yeager & Dweck, 2012). As a result, compared to those students who believe that their intelligence is fixed and unchanging, students with a growth mindset are more likely to engage in schoolwork and have better psychological well-being (Zeng et al., 2016). Therefore, the findings of this study support the current research.

Growth mindset was also positively correlated with conscientiousness ( $r_{ab,c} = .23, p = .01$ ), which is reported to increase longevity and improve quality of life. It relates to duty and concern for doing what is right as well as taking responsibility for actions and working to the best of one’s ability; it implies vigilance and great care (Copeland et al., 2010; Weller-Clarke, 2006). Sample items on the CAWS used to determine conscientiousness scores include:

- I blame other people for my problems.
- I care about my health.
- I am dependable.

This finding supports the research that reflects that those with a growth mindset believe that intelligence and ability can be developed through effort, and view challenging tasks as opportunities to grow (Zeng et al., 2016). In contrast to the helpless response pattern associated with a fixed mindset, growth mindset is characterized by the mastery-oriented response pattern that embraces challenges, persistence, and resiliency when faced with obstacles (Dweck & Leggett, 1988). As a result, those with a growth mindset live in a perceived world of

opportunities for growth; they tend to focus more on learning goals that increase ability and competency through study, learning, effort, and persistence as opposed to being primarily focused on simply measuring and recording achievement (Blackwell et al., 2007; Yeager & Dweck, 2012).

This study also revealed that there were two significant correlations related to conscientiousness and growth mindset when controlling for demographic factors. The data revealed higher levels of conscientiousness scores ( $r = -.19, p = .04$ ) among those students receiving financial aid to attend high school ( $r = -.19, p = .04$ ; Table 10). One possible explanation for this may be related to a lifestyle that is not predicated on privilege; less financial means may translate to students assuming greater responsibility for their lives and not taking for granted the opportunity and expense of attending a private Christian high school.

The study also revealed that students who had applied to a higher number of colleges had lower conscientiousness scores ( $r = -.23, p = .01$ ; Table 7). One possible explanation could be that these students determined that they needed to apply to a large number of colleges to increase the likelihood that they would be accepted to a college. Reasons could be that they had not been conscientious throughout high school and had not adequately prepared themselves for the college admission process, or perhaps they did not want to invest in conscientiously producing a high degree of quality applications to a limited number of schools. The electronic common application simplifies the submission process by allowing applicants to submit a number of applications to a variety of colleges with relative ease.

Growth mindset was also positively correlated with optimism ( $r_{ab,c} = .25, p = .008$ ), as noted in the discussion related to Research Question One. Sample items on the CAWS used to determine optimism scores include:

- My problems seem to be never ending.
- It's important to see the humor in things.
- I believe the world holds great promise.

This finding supports the research that characterize growth mindset in terms of the mastery-oriented response pattern that embraces challenges, persistence, and resiliency when faced with obstacles (Dweck & Leggett, 1988). Those with a growth mindset live in a perceived world of opportunities for growth; they tend to focus more on learning goals that increase ability and competency through study, learning, effort, and persistence as opposed to being primarily focused on simply measuring and recording it (Blackwell et al., 2007; Yeager & Dweck, 2012). In addition, whereas students with a fixed mindset interpret challenges and setbacks as failures, students with a growth mindset view academic life in terms of learning, development, and process-oriented growth. They optimistically view challenges as opportunities to improve and grow, and they enjoy learning, exploring, experimenting, and thinking critically, as they recognize that their potential has not yet been fully realized (Dweck, 2006, 2009; Zeng et al., 2016).

For a fixed mindset student, learning focuses on extrinsic rewards such as grades, scores, rankings, and awards, and fear of failure or being perceived as inferior or inadequate often influence these students to conceal their weaknesses, even at times resorting to deceit and cheating (Dweck, 2006, 2009). Believing that their value is in their ability to perform, setbacks, failure, and criticism adversely affect their confidence and self-esteem often resulting in increased stress and anxiety. Feelings of shame, hopelessness, and depression may result, leading to substance abuse, self-injury, and other risk-taking behaviors (Conner et al., 2014; Madjara et al., 2013; Redding, 2013).

Emotional Self-Regulation, a component of emotional intelligence, refers to the ability to manage feelings and emotion-related cognitive, perceptual, physiological, and interpersonal processes, and it is positively correlated with growth mindset ( $r_{ab,c} = .25, p = .007$ ). Regulating emotions is important for impulse control and contributes to success in many behavior domains, particularly social competence (Copeland et al., 2010; Goleman, 1996; Weller-Clark, 2006). Sample items on the CAWS used to determine emotional regulation scores include the following:

- I can stop myself when I am going to say something I will regret.
- I can remove myself from a frustrating situation.
- I get upset when others don't see things my way.

This finding supports the research that both mindset and emotional intelligence have an effect on academic behaviors, student outcomes, and psychological well-being (Blackwell et al., 2007; Zeng et al., 2016). Students with high emotional intelligence perform better, earn higher grades, make healthier choices, are more concerned about others, and have stronger friendships and better conflict management skills; growth mindset leads to greater academic engagement as well as higher grades and test scores (Goleman, 1995; Zeng et al., 2016).

The fifth variable positively correlated with growth mindset in this study was self-efficacy ( $r_{ab,c} = .28, p = .002$ ). According to Bandura's social cognitive theory (Bandura, 1997), self-efficacy refers to the beliefs people hold about their capabilities to yield their desired outcomes according to their behavior (Weller-Clark, 2006). Over time and through experience, these beliefs are developed and affect physical health, psychological adjustment, vulnerability to emotional distress, and flow as it relates to engagement in a task (Copeland et al., 2010; Weller-Clarke, 2006). Sample items on the CAWS used to determine self-efficacy scores include:

- On difficult tasks, I give up.
- Learning new things is fun.
- I am confident and self-assured.

This finding supports the research that students with a growth mindset are more likely to engage in schoolwork and have better psychological well-being (Zeng et al., 2016). Whereas students with a fixed mindset view success as an absence of failure, avoid exposing their deficiencies, are more likely to give up, and are typically less resilient, those with a growth mindset are more likely to bounce back from setbacks and demonstrate persistence and resilience. A growth mindset views success in terms of learning and growth, and therefore encourages students to reach, stretch, and struggle with challenges (Yeager & Dweck, 2012; Zeng et al., 2016).

### **Other Findings**

Three of the 70 Pearson correlations for the ten child and adolescent wellness scale scores and seven variables (race, weighted cumulative grade point average, number of colleges applied to, mother/guardian education, father/guardian education, high school financial aid, and gender) were significant at the  $p < .05$  level. Higher numbers of colleges applied to were related to lower conscientiousness scores ( $r = -.23, p = .01$ ; Table 7), while those receiving high school financial aid was related to higher levels of conscientiousness scores ( $r = -.19, p = .04$ ; Table 10). Possible explanations for these scores were noted in the discussion related to conscientiousness as one of the five domains positively correlated with growth mindset.

The third significant correlation at the  $p < .05$  level was more earned education by the father/guardian was related to higher social competence scores ( $r = .18, p = .04$ ; Table 9). Social competence includes affective, cognitive, and behavioral skills associated with social emotional

learning that contribute to successful interpersonal relationships. It refers to the ability to integrate socially acceptable thoughts, feelings, and behaviors according to the environmental context, and it is considered an important predictor of resilience among youth (Copeland et al., 2010; Weller-Clark, 2006). A small but growing collection of research reveals that the father's characteristics and father-child relationship qualities effect the social development of children (Michigan State University, 2016). Findings from a Michigan State University study (2016) found that fathers play a significant role in their children's language and cognitive development particularly during the toddler years as well as their social growth through fifth grade. As a result, considering that the father's influence clearly has a positive impact on their children's development, more research is needed in this area to better understand this dynamic.

Although existing research reveals that empathy, kindness, and interpersonal skills among American college-age students have steadily declined since 2000, participants in this study scored higher on the empathy dimension of the Child and Adolescent Wellness Scale ( $M = 3.26$ ) than the other nine dimensions (Konrath et al., 2011; Twenge & Campbell, 2009). One explanation for this may be that the subjects in this research study all attend private parochial schools that emphasize faith, love, and service to God and mankind. Mission trips, service projects, and philanthropy are all important aspects of their high school experience.

Current research reveals that a relationship exists between mindset and empathy. As a result, another explanation for the higher empathy score among participants in this study may be related to the greater percentage of students with a growth mindset (61.8%). Empathy is an essential element for effective communication, the development of ideas, problem solving, and conflict resolution. In addition, it promotes unity, collaboration, and team work through active listening and the ability to understand others (Ioannidou & Konstantikaki, 2008). In comparison



to those with a growth mindset, adolescents with a fixed mindset show less empathy toward peers, desire more revenge, and are less accepting of others' limitations as well as their own (Ryazanov & Christenfeld, 2018).

The Mindset Assessment Profile (Mindset Works, Inc., 2012) was utilized in this study to determine mindset, and the Child and Adolescent Wellness Scale (Copeland et al., 2017) was utilized to measure psychological well-being. To measure mindset, respondents completed the Mindset Assessment Profile, a short survey that has been used by teachers with thousands of students using the Brainology® classroom curriculum developed by Mindset Works, Inc. Respondents were asked to read the following eight statements and respond to each based on a six-point Likert-type scale that rates the level to which they agree or disagree as follows:

Strongly Agree; Agree; Somewhat Agree; Somewhat Disagree; Disagree; Strongly Disagree.

1. No matter how much intelligence you have, you can always change it a good deal.
2. You can learn new things, but you can't really change your basic level of intelligence.
3. I like my work best when it makes me think hard.
4. I like my work best when I can do it really well without too much trouble.
5. I like work that I'll learn from even if I make a lot of mistakes.
6. I like my work best when I can do it perfectly without any mistakes.
7. When something is hard, it just makes me want to work more on it, not less.
8. To tell the truth, when I work hard, it makes me feel as though I'm not very smart.

Statements 2, 4, 6, 8 are fixed mindset questions, and statements 1, 3, 5, 7 reflect growth mindset. According to Dweck (2006), the fixed mindset is concerned with appearance and judgement, whereas the growth mindset is concerned with growth and improvement.

Although the Mindset Assessment Profile contains a sampling of questions from several research-validated scales measuring mindsets related to intelligence (Cronbach alpha = .78), learning goals (Cronbach alpha = .73), and beliefs about effort (Cronbach alpha = .79), for this study, the results of this instrument should be considered cautiously, as the internal consistency score yielded a Cronbach alpha score of .40. There are a variety of reasons that may explain the low reliability score apart from issues that may be related to the instrument itself including the timing and setting of the data collection.

It is assumed that the respondents answered in an honest, accurate, conscientious, and serious manner; however, considering the emphasis on presenting a positive image in the development of a pristine profile, it is possible that some of the students may have responded to survey questions based on their attempt to preserve their desired image or on their perceptions of what their school administrator and/or researcher expected. As a result, it is possible that the results were affected by social desirability bias. The eight survey questions from the Mindset Assessment Profile were the first eight questions of the survey after the background demographic questions; for future study, it is suggested that the survey instrument end with the eight mindset questions rather than begin with them, as the subjects may have overly analyzed each question before responding. At the end of the survey, subjects may be more likely to respond with less introspective analysis.

Another possible explanation for the low reliability score on the Mindset Assessment Profile may be related to timing of when the data was collected. Considering that the respondents were informed that the survey was voluntary, and the administration of the survey by their school administration occurred less than six weeks before their high school graduation and well after college applications had been submitted, it is possible that the respondents may not have taken

the survey as seriously as desired and, therefore, did not provide thoughtful responses. As a result, responses may have reflected end of the year fatigue or indifference to the survey and/or purpose of the research.

For future study, the Mindset Assessment Profile might be administered to students at the beginning of the school year and perhaps at various points in their high school career to evaluate both the reliability of the instrument as well as any variance in student responses. Surveying the same population of students at various times throughout their four years in high school might yield insight as to how the high school experience and college admission process affect mindset and psychological well-being. In addition, future research with this population might include studying the relationship between mindset and college graduation rates, or perhaps changes in mindset and/or psychological well-being during the course of their college experience. Finally, while this study specifically focused on high achieving college-bound seniors attending college-preparatory, private Christian high schools, future studies may include students from public schools, charter schools, and homeschools.

### **Conclusions and Recommendations**

The purpose of this study was to determine the relationship between mindset and psychological well-being for a sample of 123 high achieving, college-bound senior students attending private, college-preparatory Christian high schools in Orange County, California, and to review the factors related to applying to college that affect and shape the life experience of these students. Both, Hypothesis One (mindset and psychological well-being) and Hypothesis Two (mindset and psychological well-being, controlling for demographic factors) were supported (Table 4). The results of this study support the need to reevaluate the effects of the college admission process on adolescent mindset and psychological well-being.

Although schools have traditionally been expected to serve as places of learning and growth to prepare students to become knowledgeable, responsible, caring adults, the direction of American education the past few decades has shifted to a focus on test scores, technical skills, and the accumulation of knowledge to the exclusion of whole person development. As a result, education has become less about growth mindset objectives that include learning, exploring, discovery, and growth and more about fixed mindset objectives including grades, test scores, achievements, awards, and appearances. Furthermore, educators today are frequently viewed more as publicists or agents commissioned to assist in the development of impressive profiles and robust college resumes rather than as champions for teaching and learning focused on developing strong, healthy, caring people for a better world.

The culture of American education is largely predicated on acquiring the proverbial golden ticket for entrance to an esteemed college, and there are a number of unintended consequences related to education, parenting, learning, and adolescent health and psychological well-being. As students strive to graduate from high school with perfected profiles that impress and garner admission to these colleges, high school success and educational practices are typically focused on achievement as reflected by test scores, grades, college acceptance results, and scholarship offers (Zins et al., 2004). As a result, the pressure to perform, compete, and excel, leaves many students exhausted, discouraged, anxious, and stressed with little time to identify strengths, discover passions, and cultivate real-world life skills (Abeles, 2016).

Instead of prioritizing process-oriented learning that is associated with a growth mindset, achievement performance measures focus on extrinsic rewards often linked with a fixed mindset such as grades, scores, rankings, and awards (Dweck, 2006). As students pursue accolades and marks of achievement, various aspects of learning are supplanted including risk, struggle,

persistence, resilience, and growth, often at the expense of character, values, integrity, and psychological well-being (Guang et al., 2016). Being recognized as the best, standing out above the rest, and winning at all costs accelerate a competitive, self-centered culture, as students become focused on themselves at the expense of others (Konrath et al., 2011; McCombs, 2004). As a result, it is not surprising that personal success, including individual achievement, happiness, and hard work, are valued by American youth above fairness and concern for others (Weissbourd et al., 2014).

When prioritized over caring and fairness, selfishness, indifference, and a lack of empathy are more prevalent, and children are less likely to develop key foundational relationship skills. In addition, adolescents are at a greater risk of being disrespectful, cruel, and dishonest. According to the National Center for Educational Statistics (2016), at 20.8%, more than one out of every five students report being bullied. In addition, cheating incidents have increased, as 75% of high school students admit to copying another's homework, and 50% admit to cheating on a test (Weissbourd et al., 2014). Furthermore, according to a study conducted by Pew Research Center in 2006, 81% of people, ages 18-25 years old, indicated that getting rich was among their most important goals, whereas only 30% indicated that helping others who are in need of help is an important goal among their generation (Konrath et al., 2011).

The achievement pressure adolescents are experiencing from parents and high schools to get into a good college is producing the most anxious, stressed, and sleep-deprived generation ever (Jones & Ginsberg, 2006). Therefore, because the college admission process is powerfully positioned to influence values, beliefs, and actions, it is important that parents, educators, and policy makers consider the messages that are being communicated to students through the college admission process, and the achievement pressure that is associated with it. In January 2016, the

Graduate School of Education at Harvard University released a report titled, *Turning the Tide: Inspiring Concern for Others and the Common Good Through College Admissions*, and over 175 colleges and universities have endorsed it (Common, 2016).

The report makes recommendations to reshape the college admission process, reduce excessive achievement pressure, promote greater ethical engagement, and provide economically disadvantaged students with equal opportunity. The report was designed as the first step in a two-year campaign that seeks to substantially reshape the existing college admission process. One of its recommendations for change is to make SAT and ACT scores optional (Common, 2016). The increased awareness generated by current research and Harvard's Turning the Tide report is a positive step in reshaping the college admission process.

Changing the culture of American education may be like attempting to change the direction of the wind. As a result, perhaps the first course of action is to adjust the sails by creating awareness and exposing concerns that force honest discussion, challenge mental models, fuel cognitive dissonance, and increase urgency to effect change (Stavredes, 2011). This body of research provides a framework for discussion, and future study may build on the following questions:

- Does the college admission process promote a fixed mindset?
- How does the college admission process influence parenting styles that affect the development of their children's mindset?
- How does the college admission process influence parenting styles that affect their children's well-being?
- Is there a relationship between mindset and locus of control among adolescents?
- Is there a relationship between mindset, narcissism, and empathy among adolescents?

- How does achievement pressure related to the college admission process affect school engagement and the high school experience?
- How can the college admission process elicit healthier positive outcomes for their students?

Furthermore, the current trend in education related to college admissions could be altered if measurement and achievement criteria were established that promote attributes of emotional intelligence such as self-awareness, self-regulation, perseverance, resiliency, emotional stability, empathy, and social skills. More than any other variables including IQ and academic achievement, emotional intelligence is a better, more accurate predictor of success, and it can increase through social emotional learning (Goleman, 1996). Generally speaking, there are five main components of emotional intelligence; the first three are focused on oneself and include self-awareness, self-regulation, and motivation, and the last two are focused on others and include empathy and social skills (Goleman, 1995).

Research reveals that emotional intelligence is important to human health and function, and there is a strong interconnectedness of intellect and emotions in the learning process, as emotions drive motivation, attention, learning, memory, and other mental processes (McCombs, 2004). Students with high emotional intelligence perform better, earn higher grades, make healthier choices, are more concerned about others, and have stronger friendships and better conflict management skills. Adults with high emotional intelligence are more effective leaders, experience greater career opportunity, and have better personal and professional relationships (Goleman, 1995).

Social emotional learning focuses on developing emotional intelligence, and it is the process by which people learn how to recognize and manage emotions, develop and maintain

positive relationships, empathize and care about others, make informed and responsible decisions, set and achieve goals, avoid poor behaviors, and behave responsibly, morally, and ethically (McCombs, 2004). Social emotional learning enhances students' ability to integrate thoughts, emotions, and behaviors to achieve important aspects of life, and research reveals that social and emotional skills are essential components for the successful development of learning skills and cognitive thinking (McCombs, 2004; Zins et al., 2004). In addition, social emotional learning environments are designed to extend instruction and generalize learning beyond the classroom. As a result, social emotional learning contributes to academic success as well as intrinsic motivation, positive relationships, and healthy growth and development (McComb, 2004).

Although research reveals that social emotional learning processes and outcomes have a positive academic effect, today's school policies and practices that promote profiles and performance standards marginalize the opportunity to integrate social emotional learning in schools (McComb, 2004). For example, the practice of evaluating schools and teachers based on student achievement misplaces the responsibility for learning. A learner-centered educational approach emphasizes choice, which breeds ownership and empowerment, and it fosters an environment that promotes resiliency as learners grow through challenges, risk, and failure (McComb, 2004). Overly controlling the learning process yields compliance and resentment rather than responsibility and accountability, and yet the emphasis on achievement measures and perfect profiles present competing values and goals.

Although teachers and parents may be initially supportive of the concept and rationale for integrating social emotional learning, it is possible that some may be concerned about additional expectations and responsibilities. There may be concern that the time focused on increasing



emotional intelligence might be an added layer of responsibility that not only increases the high demands of student workload but could also minimize opportunities to prepare students for academic success in content areas. To address concerns and provide a compelling rationale for social emotional learning programs, it is important to emphasize learner-centered principles and the meaning and process of learning as a foundational framework to balance academic achievement and social emotional learning outcomes (McCombs, 2004).

Learning is the purpose of school, and meaningful sustained learning is considered a whole-person phenomenon with cognition and affect working together synergistically (McCombs, 2004). As a result, it is recommended that educators evaluate the purpose and goals of education, consider the implications of the current system, and study how the educational system can foster learning and a growth mindset to promote health and psychological well-being. Culture powerfully influences human behavior; as a result, for the health and psychological well-being of today's adolescents and future generations, transformational leadership is needed to shift the focus of American education from the golden ticket to college to the golden opportunities associated with learning.

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APPENDIX A  
IRB Approval Letter



Pepperdine University  
24255 Pacific Coast Highway  
Malibu, CA 90263  
TEL: 310-506-4000

**NOTICE OF APPROVAL FOR HUMAN RESEARCH**

Date: April 09, 2018

Protocol Investigator Name: Leslie Smith

Protocol #: 18-03-747

Project Title: A QUANTITATIVE STUDY MEASURING THE RELATIONSHIP BETWEEN MINDSET AND PSYCHOLOGICAL WELL-BEING AMONG HIGH ACHIEVING COLLEGE-BOUND STUDENTS ATTENDING PRIVATE CHRISTIAN HIGH SCHOOLS IN ORANGE COUNTY, CALIFORNIA

School: Graduate School of Education and Psychology

Dear Leslie Smith:

Thank you for submitting your application for exempt review to Pepperdine University's Institutional Review Board (IRB). We appreciate the work you have done on your proposal. The IRB has reviewed your submitted IRB application and all ancillary materials. Upon review, the IRB has determined that the above entitled project meets the requirements for exemption under the federal regulations 45 CFR 46.101 that govern the protections of human subjects.

Your research must be conducted according to the proposal that was submitted to the IRB. If changes to the approved protocol occur, a revised protocol must be reviewed and approved by the IRB before implementation. For any proposed changes in your research protocol, please submit an amendment to the IRB. Since your study falls under exemption, there is no requirement for continuing IRB review of your project. Please be aware that changes to your protocol may prevent the research from qualifying for exemption from 45 CFR 46.101 and require submission of a new IRB application or other materials to the IRB.

A goal of the IRB is to prevent negative occurrences during any research study. However, despite the best intent, unforeseen circumstances or events may arise during the research. If an unexpected situation or adverse event happens during your investigation, please notify the IRB as soon as possible. We will ask for a complete written explanation of the event and your written response. Other actions also may be required depending on the nature of the event. Details regarding the timeframe in which adverse events must be reported to the IRB and documenting the adverse event can be found in the *Pepperdine University Protection of Human Participants in Research: Policies and Procedures Manual* at [community.pepperdine.edu/irb](http://community.pepperdine.edu/irb).

Please refer to the protocol number denoted above in all communication or correspondence related to your application and this approval. Should you have additional questions or require clarification of the contents of this letter, please contact the IRB Office. On behalf of the IRB, I wish you success in this scholarly pursuit.

Sincerely,

Judy Ho, Ph.D., IRB Chair

APPENDIX B

Survey Consent Form

**PEPPERDINE UNIVERSITY**

*Graduate School of Education and Psychology*

**INFORMATION/FACTS SHEET FOR EXEMPT RESEARCH**

**A QUANTITATIVE STUDY MEASURING THE RELATIONSHIP BETWEEN MINDSET AND PSYCHOLOGICAL WELL-BEING AMONG HIGH ACHIEVING COLLEGE-BOUND STUDENTS ATTENDING PRIVATE CHRISTIAN HIGH SCHOOLS IN ORANGE COUNTY, CALIFORNIA**

You are invited to participate in a research study conducted by a doctoral candidate at Pepperdine University because you are a senior at your school and are at least 18 years old. The researcher of this study is supervised by Dr. James Dellaneve, chairman for this doctoral dissertation. Your participation is voluntary. Please read the information below, and ask questions about anything that you do not understand before deciding whether to participate.

**PURPOSE OF THE STUDY**

The purpose of the study is to determine if personal views, referred to as mindset, affect overall well-being as it relates to emotions, engagement, relationships, meaning, and accomplishments.

**PARTICIPANT INVOLVEMENT**

If you agree to voluntarily to take part in this anonymous study, you will be asked to complete an online survey that includes 108 questions, most of which are multiple choice responses based on a scale that range from “Strongly Agree” to “Strongly Disagree.”

The entire survey is anticipated to take less than 45 minutes. Each question requires a response which may include “Other” or “I Don’t Know.” The first 20 questions provide demographic information, and if you do not want to answer some of these questions, you may select “Other” or “Prefer Not to Say.”

There is minimal risk by participating in this study, and there are no expected benefits directly related to the subjects. It is anticipated that findings will provide relevant information for future study and potential interventions that may decrease unhealthy levels of anxiety and stress among adolescents and promote positive mental health and well-being.



## **PARTICIPATION AND WITHDRAWAL**

You are eligible to participate in this study if you are at least 18 years of age. Your participation is voluntary; your refusal to participate will involve no penalty or loss of benefits to which you are otherwise entitled. You may withdraw your consent at any time and discontinue participation without penalty. You are not waiving any legal claims, rights, or remedies because of your participation in this research study.

## **ALTERNATIVES TO FULL PARTICIPATION**

Your alternative is to not participate in this study; your relationship with your school will not be affected whether or not you participate in this study.

## **CONFIDENTIALITY**

There will be no identifiable information obtained in connection with this study. Your name, address, or any other identifiable information will not be collected. The data will be stored on a password protected computer by the researcher for three years after the study has been completed and then destroyed.

## **RESEARCHER'S CONTACT INFORMATION**

I understand that the researcher is willing to answer any inquiries I may have concerning the research herein described. Should I have any questions or concerns about this research or request a copy of this information fact sheet, I understand that I may contact the researcher at [REDACTED] or the supervising faculty advisor at [REDACTED]

## **RIGHTS OF RESEARCH PARTICIPANT – IRB CONTACT INFORMATION**

If you have questions, concerns or complaints about your rights as a research participant or research in general please contact Dr. Judy Ho, Chairperson of the Graduate & Professional Schools Institutional Review Board at Pepperdine University 6100 Center Drive Suite 500 Los Angeles, CA 90045, 310-568-5753 or [gpsirb@pepperdine.edu](mailto:gpsirb@pepperdine.edu).

**By selecting “YES,” you are acknowledging that you are at least 18 years old and that you consent to participating in this study.**

- **YES, I am at least 18 years old, and I agree to participate in this study.**
- **NO, I am not yet 18 years old, and/or I do not agree to participate in this study.**

## APPENDIX C

### Principal Recruitment Letter

March 19, 2018

Dear [REDACTED]

My name is Leslie Smith, and I am a doctoral student in the School of Education and Psychology at Pepperdine University. Thank you for your willingness to participate in my research study examining the relationship between mindset and psychological well-being among high achieving, college-bound senior students attending private, college-preparatory Christian high schools in Orange County, California.

My dissertation is a review of the factors related to applying to college that shape the life experiences of high school students and affect their mental health and well-being. Quantitative data will be explored to discover relationships and themes related to mindset and psychological well-being and to provide strategies that promote positive, healthier outcomes particularly as it relates to the college admission process.

This study is relevant because it reveals the underlying factors related to the emotional needs of today's adolescents, providing teachers, counselors, and school administrators with important information that may influence vision, goals, policies, and instruction. Furthermore, it identifies the need to evaluate and influence current college admission policies and practices to foster psychological well-being. The information obtained from this study will be analyzed to generate recommendations for future studies on college bound high school students and the college admission process because colleges and universities are powerfully positioned to influence the values, beliefs, and actions of students, parents, and the organizations that exist to serve them. Additionally, this study will assist society, policymakers, and university leaders in determining criteria and processes related to the college admissions process.

**Your senior students who are at least 18 years of age will be asked to voluntarily complete an anonymous electronic online survey that consists of 88 multiple choice questions that measure mindset and wellness as well as a few demographic questions. Ideally, all of the respondents will complete the survey together at the same time on your campus sometime between April 9-12, 2018. It is anticipated that the survey will take less than 45 minutes.** To facilitate this, I appreciate your assistance in scheduling a time and location on your campus with good internet access, so students can complete the electronic survey on their devices. It is important that the students do not know my identity, so I am requesting that you provide a staff member from your campus to read the instructions provided and proctor the survey. I am happy to supply a representative of my study to assist you as necessary.

To preserve the integrity of the process and the survey results, access to the link will be deactivated at the conclusion of each school's survey timeframe. Upon completion of the survey, I will provide your school's data along with a summary of the findings of the overall study once it is complete. Specific information related to your students including the name of your school will remain anonymous in any published study based on completion of the results. In addition,

because of my role as an administrator at one of the peer schools participating in this study, none of the participants will be informed of my identity or my school affiliation to minimize the potential for bias.

To confirm your participation in this study and inform me of your survey date, please complete the following few questions found [HERE](#). Should you have any questions or concerns, please contact me at [leslie.a.smith@pepperdine.edu](mailto:leslie.a.smith@pepperdine.edu) or [REDACTED].

Thank you for your participation,

Leslie Smith  
Doctoral Candidate  
Pepperdine University, School of Psychology and Education

APPENDIX D

School Site Consent Form

April 9, 2018

Title of Study: A QUANTITATIVE STUDY MEASURING THE RELATIONSHIP BETWEEN MINDSET AND PSYCHOLOGICAL WELL-BEING AMONG HIGH ACHIEVING COLLEGE-BOUND STUDENTS ATTENDING PRIVATE CHRISTIAN HIGH SCHOOLS IN ORANGE COUNTY, CA

Principal Investigator: Leslie A. Radmacher-Smith

To the Pepperdine University Graduate and Professional School (GPS) IRB, As a representative of Orange Lutheran High School, I confirm that this private Christian school grants permission for the proposed research to be conducted once IRB approval has been obtained. The research will take place on our campus.

Family Educational Rights and Privacy Act (FERPA)<sup>1</sup>

This letter confirms that Orange Lutheran High School has policies and procedures in place as required by the Protection of Pupil Rights Amendment (PPRA), and the proposed study complies with these policies.

If applicable, check one of the following:

Written consent to disclose student information is required.

X Written consent to disclose student information is not required. The school district has entered into use-restriction and data security promises with the investigator in accordance with PPRA.

Protection of Pupil Rights Amendment (PPRA)<sup>2</sup>

Check one of the following:

X The research falls under PPRA regulations and the IRB cannot waive written parental permission and the research proposal includes plans to adhere to PPRA regulations. Subjects are 18 years of age or older, so parent permission is not required.

The research does not fall under PPRA regulations.

Printed Name of School Official Name of School

1 http://www2.ed.gov/policy/gen/guid/fpco/ferpa/index.html
2 http://www2.ed.gov/policy/gen/guid/fpco/ppra/index.html

Signature of School Principal  
April 2, 2018

Date

IRB Number: 18-03-747  
Title of Study: A QUANTITATIVE STUDY MEASURING THE  
RELATIONSHIP BETWEEN MINDSET AND  
PSYCHOLOGICAL WELL-BEING AMONG HIGH ACHIEVING  
COLLEGE-BOUND STUDENTS ATTENDING PRIVATE  
CHRISTIAN HIGH SCHOOLS IN ORANGE COUNTY,  
CALIFORNIA

Principal Investigator: Leslie A. Radmacher-Smith  
Sponsor or Funding Agency: Pepperdine University

To the Pepperdine University Graduate and Professional School (GPS) IRB,

As the principal of [REDACTED], I am aware of the research procedures for the study. I give permission for the study to take place at [REDACTED] and for the researcher to have contact with students at this site (as described in the research protocol). My permission is contingent upon IRB approval.

[REDACTED]  
Printed Name of School Principal

Signature of School Principal

Date

## APPENDIX E

### Instruction Letter for Principals

April 9, 2018

Dear [REDACTED]

Thank you for your willingness to participate in my research study this week that examines the relationship between mindset and psychological well-being among high achieving, college-bound senior students attending private, college-preparatory Christian high schools in Orange County, California. Below are specific instructions related to conducting the survey.

#### **SURVEY DETAILS**

1. Please sign both of the attached site permission forms.
2. Please query your student population by age and notify your senior students who are 18 years of age about the opportunity to participate in the study during your predetermined time before Thursday, April 12, 2018. **Ideally, all of the eligible students will complete the survey together at the same time on your campus. It is suggested that schools utilize their Advisement Period to complete the survey; however, each principal has the discretion to determine a suitable setting that provides good internet access.** The entire electronic survey should take approximately 45 minutes or less and consists of 88 multiple choice questions that measure mindset and wellness as well as a few demographic questions.
3. Please read to the eligible students the Proctor Script exactly as written before providing them access to the survey link listed at the bottom of the script. Because of my role as an administrator at one of the peer schools participating in this study, none of the participants will be informed of my identity or my school affiliation to minimize the potential for bias. As a result, it is important that the students do not know my identity or my affiliation to [REDACTED]; please only refer to this study in relation to “a doctoral student at Pepperdine University.”

Please notify me as to the timeframe of when the survey will be conducted, as access to the link will be deactivated at the conclusion of your survey timeframe. Upon completion of the survey, I will provide your school’s data along with a summary of the findings of the overall study once it is complete. Specific information related to your students including the name of your school will remain anonymous in any published study based on completion of the results. Should you have any questions or concerns, please contact me at [leslie.a.smith@pepperdine.edu](mailto:leslie.a.smith@pepperdine.edu) or (714) 351-8945.

Thank you for your participation,

Leslie Smith  
Doctoral Candidate  
Pepperdine University, School of Psychology and Education

## APPENDIX F

### Survey Proctor Script

#### **PROCTOR SCRIPT for Mindset and Well-Being Study** *Pepperdine University Doctoral Student*

Instructions: Please read the following instructions exactly as written to all senior students at your school who are at least 18 years of age.

We are one of five private Christian high schools in Orange County that has been selected to participate in a research study that is being conducted by a doctoral student in the School of Education and Psychology at Pepperdine University. The study examines the factors related to applying to college that shape the life experiences of high school students and affect their mental health and well-being. Our participation is important because the results of this study will reveal the underlying factors related to the emotional needs of today's high school students, providing teachers, counselors, and school administrators with important information that may influence vision, goals, policies, and instruction. Furthermore, it will identify the need to evaluate and influence current college admission policies and practices to foster well-being. The information obtained from this study will be analyzed to generate recommendations for future studies on college bound high school students and the college admission process because colleges and universities are powerfully positioned to influence the values, beliefs, and actions of students, parents, and the organizations that exist to serve them. Additionally, this study will assist policymakers and university leaders in determining criteria and processes related to the college admissions process.

As a result, we have agreed to request that all of our senior students who are at least 18 years of age participate in this study. Your participation in this study is completely voluntary and would require you to complete an anonymous electronic online survey that consists of 88 multiple choice questions that measure mindset and wellness, as well as a few demographic questions. It is anticipated that the survey will take less than 45 minutes. All information you provide is completely anonymous and will in no way be linked to you personally, and the name of our school will remain anonymous in any published study.

Before you will have access to the research survey, you will be asked to read the consent form that outlines the purpose of the study, your involvement, anonymity, confidentiality, and rights as a research participant. Once you have read the consent form in its entirety, you will be asked to verify that you are at least 18 years old and that you consent to participate in the study. A "Yes" response will provide you access to the research survey.

Do you have any questions at this time?

If there are no questions at this time, please logon to the electronic consent form and survey at [REDACTED]. When you finish, please remain quiet until you are excused.