

THE EFFECTS OF SOCIAL-CONNECTEDNESS AND SELF-ESTEEM ON THE
RESILIENCY OF HOMESCHOOL STUDENTS

by

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Liberty University

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ABSTRACT

The purpose of this bivariate regression study was to determine if social-connectedness and self-esteem are good predictors of resiliency in homeschool students. Within the study, two research questions were asked: (1) How accurately can resiliency, as measured by the Child and Youth Resilience Measure, be predicted by social-connectedness, as measured by Lee and Robbins Social Connectedness Scale, in homeschooled students? (2) How accurately can resiliency, as measured by the Child and Youth Resilience Measure, be predicted by self-esteem, as measured by Rosenberg's Self-Esteem Scale, in homeschooled students? To best address these questions, a quantitative approach was used to determine if a predictive relationship exists between resiliency and social-connectedness or resiliency and self-esteem. Data were collected by means of surveys and a demographic questionnaire. Data were analyzed in SPSS using bivariate regression to determine if there was a predictive relationship between social-connectedness and resiliency or self-esteem and resiliency in homeschooled students. Results indicated there was a statistically significant predictive relationship between social-connectedness and resiliency. There was not a statistically significant predictive relationship between self-esteem and resiliency. Recommendations for further research include using a larger sample size, using a different population, using different instruments, and using a different age group.

Keywords: homeschooling, homeschool, education, resiliency, social-connectedness, self-esteem

Dedication

I dedicate this study to my mother. Her thoughtful words, love, and witty humor have helped to shape the person I have become. Although she started with me on this journey but is no longer here to see me to the end, I find comfort in knowing that she believed in me and my day has finally arrived. She exemplified Christ love for His children. All that I am is because of her love for me.

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List of Abbreviations

Analysis of Variance (ANOVA)

English Standard Version (ESV)

Home School Legal Defense Council (HSLDA)

Institutional Review Board (IRB)

Major Depressive Disorder (MDD)

Statistical Package for the Social Sciences (SPSS)

CHAPTER ONE: INTRODUCTION

Overview

This research study aimed to address if a relationship exists between resiliency and social-connectedness or resiliency and self-esteem. First, the background of homeschooling was discussed to include its definition and its origin. Next, a discussion of the problem statement was addressed to outline the major issues. Following, the purpose of the study was examined which laid the foundation for the rationale of the study. Next, the significance of the study was outlined to disclose the importance of additional research needed in this area. The research questions were noted, followed by the null hypotheses. Lastly, significant terms outlined in the study were defined.

Background

Due to the growing popularity of home education among families, this topic has sparked a debate over the past decade (Bell, Kaplan, & Thurman, 2016; Hanna, 2012; Jolly, Matthews, & Nester, 2012; Kunzman, & Gaither, 2013). Constituents, traditional educators, and politicians argue that children who are homeschooled will be at a disadvantage in comparison to those children that attend traditional schools (Martin-Chang, Gould, & Meuse, 2011; Murphy, 2014). The rationale that these students will fall behind is based on the notion that homeschool students are not afforded the same opportunities and resources as their peers in traditional schools. The most notable issues up for debate are socialization and academic outcomes (Home School Legal Defense Council, 2015; Klicka, 2007; Martin-Chang et al., 2011). Research (Howell, 2003) suggests that homeschool students have a deficit when it comes to communicating and feeling comfortable in social environments with their peers due to lack of exposure. On the other hand, those in favor of homeschooling suggest that homeschool students are socialized, even more so

than children taught in a traditional setting because they are not only exposed to their peers but to people of different age groups (Klicka, 2007; Ray, 2003). Academically, researchers propose that homeschool students fall behind their peers taught in a traditional school setting due to lack of resources, educator ability, and group interaction (Martin-Chang et al., 2011). In light of this, recent studies conducted (Hanna, 2012; Kunzman & Gaither, 2013) suggest that homeschooled students far surpass their traditional school peers academically when comparing results on standardized tests.

Providing schooling in the home environment was the major form of education prior to the advent of compulsory education in the 1700s (Cogan, 2010). The notion of hiring a teacher was reserved for the elite (DiStefano, Rudestam, & Silverman, 2004), and parents, typically mothers, were left to their own vices when it came to educating their children. During this time, mothers used the resources that they had at hand to teach their children not only academics but healthy living, home economics and how to function in the world (Cogan, 2010). Even still, the modern homeschool movement did not occur until the 1970s (Kleist-Tesch, 1998). According to the National Center for Education Statistics (2014), the number of homeschooled students has grown from 1.1 million students in 2003 to 1.8 million students in 2012. Aasen (2010) suggested that the phenomenon of homeschooling will not dissipate but steadily increase over the coming years.

In fact, the United States led the way in homeschooling with approximately 1.5 million homeschooled students with England second with 80,000 (Kunzman & Gaither, 2013). There has been a growing concern with the traditional education system, and parents have felt led to seek other alternatives to traditional education. Homeschooling, in which the parent is the primary educator, has been the alternative of choice, and parents feel empowered to be a

responsible party in educating their children. Parents either make the decision early in their child's life that they will never attend school, or they remove them from their current school. From this point, parents are not only charged with providing the daily needs of the children, but also their education. They garner support from friends, community organizations, and social groups to seek out information on effective ways to pave the road in homeschooling (Kunzman & Gaither, 2013). Jackson and Allan (2010) stated from an early age that school plays a major role in a child's life but doesn't have to be defined as a classroom with a teacher with twenty desks and twenty students. Learning extends far beyond the walls of a classroom or the mind of the teacher (Kunzman & Gaither, 2013).

Even still, homeschooling remains a controversial topic. Reich (2005) suggested that homeschooling permits a "parental despotism" (p. 113) so intense that children may "fail to develop the capacity to think for themselves" (p. 114). Reich went on to say that they may grow up to be "unfree" (p. 114) and "civically disabled" (p. 111), and society is built upon self-directed, autonomous people. Medlin (2000) offered a different viewpoint and suggested that homeschooled children are far from isolated from society and are socially adept of functioning in the world:

Homeschooled children are taking part in the daily routines of their communities. They are certainly not isolated, in fact, they associate with—and feel close to—all sorts of people. Homeschooling parents ... actively encourage their children to take advantage of social opportunities outside the family. Homeschooled children are acquiring the rules of behavior and systems of beliefs and attitudes they need. They have good self-esteem and are likely to display fewer behavior problems than other children. They may be more

socially mature and have better leadership skills than other children as well. And they appear to be functioning effectively as members of adult society. (p. 119)

Nonetheless, the question that is still prevalent among this homeschooling era – Is homeschooling an effective means of educating children – remains at the forefront of this debate even though homeschooling is not a new ideal.

Problem Statement

The concept of educating children at home continues to carry the stigma that these children will not be prepared to function in the world in which they live. Recent studies suggest that students that are homeschooled are not socially adept due to a lack of social interaction and maturity (Home School Legal Defense Association [HSLDA], 2016) and lack the aptitude (Jolly et al., 2012; Kunzman & Gaither, 2013) to be productive citizens. Murphy (2014) also noted that while there are numerous studies on socialization and resiliency, none of them have considered the homeschool population. Consequently, it is postulated that students that are homeschooled will not possess the resiliency to overcome setbacks and obstacles (Thomas, 2016).

As a result, this research strived to address a gap in the literature of an understanding of how socialization and self-esteem play a factor in the resiliency of homeschooled students. Researching the relationship of socialization and self-esteem on resiliency in homeschool students provided a clearer picture to determine if they are good predictors of resiliency. It will also allow constituents, traditional educators, and politicians to better understand how socialization and self-esteem play a major role in the life of a homeschool student. This study used a bivariate regression design to examine if social-connectedness or self-esteem are good predictors of resiliency in students that are homeschooled. Accordingly, the problem is that there has been no research conducted that determines if social connectedness or self-esteem are good

predictors of resiliency in students that are homeschooled, which is clearly supported by the current literature.

Purpose Statement

The purpose of this quantitative correlational study was to determine if social-connectedness and self-esteem are good predictors of resiliency in homeschooled students. The predictor variables were self-esteem and social-connectedness. In this study, social-connectedness was defined as the degree to which people feel connected to others in their social environment (Cornell University, 2009), and self-esteem was defined as how a person feels about themselves and their ability and inability to accomplish tasks (Rosenberg, 1965). The criterion variable was resiliency. In this study, resiliency was defined as the ability for homeschool students to cope with and overcome obstacles and setbacks (Resilience Scale, 2016). The population consisted of homeschooled students ages 14-18.

Significance of the Study

Within the existing literature of homeschooling, this study is significant because it elaborates on a topic that is often thought to be a limitation in homeschooling, socialization. Indeed, similar research articles recommend additional research on socialization (Bell et al., 2016; Goodwin, Mrug, Borch, & Cillessen, 2011; Hanna, 2012; Home School Legal Defense Association, 2015; Klicka, 2007; Kraftl, 2013). Merry and Howell (2009) purported that homeschooling encourages an increased intimate and supportive relationship between the parent and child which develops and strengthens the social and personal growth of a child. Neuman and Guterman (2016) further stated that a reduced level of social interaction among peers may have a positive influence on children as it can lead to decreased anxieties and fears regarding social status and acceptance.

Identifying the factors that influence resiliency in homeschool students shed some light on the misnomer that homeschool students are not socialized and are therefore not capable of adapting to the world in which they live. Resiliency entails a large portion of how someone functions in society. The ability to bounce back after setbacks can proliferate lasting effects of happiness and positive self-esteem. This aspect is vital in how people interact with others in the environment. Understanding if socialization and self-esteem are good predictors of resiliency may serve to help those who doubt homeschooling is an effective method to teaching children.

Research Questions

RQ1: How accurately can resiliency, as measured by the Child and Youth Resilience Measure, be predicted by social-connectedness, as measured by Lee and Robbins Social Connectedness Scale, in homeschooled students?

RQ2: How accurately can resiliency, as measured by the Child and Youth Resilience Measure, be predicted by self-esteem, as measured by Rosenberg's Self-Esteem Scale, in homeschooled students?

Definitions

1. *Resiliency* - Resiliency is the ability to cope with and respond successfully to various life stressors (Resilience Scale, 2016). Resiliency was measured by the Child and Youth Resilience Measure developed by Ungar and Liebenberg (2011). This instrument measures a person's ability to cope with and bounce back from various life stressors. This measure was based on a range from planning and thinking ahead to level of independence. The instrument consists of 28 questions measured on a five-point Likert scale. Responses range from one (not at all) to five (a lot). This instrument has three subscales: personal skills, caregiving, and sense of belonging.

2. *Social-connectedness* - Social connectedness is the degree to which people feel connected to others in their social environment (Cornell University, 2009). This predictor variable measured a young person's ability to connect with other people of varying ages in a social environment. Social-connectedness was measured by the Social-Connectedness Scale developed by Lee and Robins (1995). This instrument assesses the degree to which youth feel connected to others in their social environment. The instrument consists of eight items measured on a six-point Likert scale. Responses range from one (strongly agree) to six (strongly disagree).
3. *Self-esteem* - Self-esteem refers to how a person feels about themselves and their ability and inability to accomplish tasks (Rosenberg, 1965). When one has a healthy self-esteem, he or she generally feels good about themselves and a confidence in verbalizing thoughts. When one has a low self-esteem, he or she generally feels bad about themselves and places little value on his or her thoughts and opinions. Self-esteem was measured by the Rosenberg's self-esteem scale developed by Rosenberg (1965). This instrument measures a person's self-esteem, self-worth, self-respect, and ability. The instrument consists of 10 items measured on a four-point Likert scale. Responses range from three (strongly agree) to zero (strongly disagree).
4. *Homeschool* - Homeschool refers to any parent or legal guardian that provides the primary education for their child in the home setting (HSLDA, 2016).

CHAPTER TWO: LITERATURE REVIEW

Overview

Homeschooling, a form of education that typically takes place outside the formal school environment, is led under the child's parent or guardian that serves as the primary educator. Recent data suggested that 3.4 percent of children aged 5-17 were homeschooled during the 2011-2012 school year (National Center for Education Statistics, 2016), which was an increase from 2007 and 2003 which accounted for three and 2.2 percent respectively. Years ago, homeschool families were primarily White middle-class Christians (Masters, 1996), but this demographic is changing as more families are becoming aware of this concept and becoming increasingly dissatisfied with the public-school system (Cogan, 2010). According to the National Center for Education Statistics (2016), among children who are homeschooled, 83 percent are White, five percent are Black, seven percent are Hispanic, and two percent are Asian or Pacific Islander.

Theoretical Framework

Social Cognitive Theory

While the factors that relate to resiliency in home school students remain unclear, examining the factors that may relate to resiliency in homeschool students in light of social cognitive theory may help to explain if a relationship exists between social-connectedness and resiliency or self-esteem and resiliency. Social cognitive theory, originated by Bandura (1977) in the 1960s, dictates that learning occurs in a social context with a reciprocal interaction of the person, environment, and behavior (Bandura, 1977). This triadic approach in which learning becomes a multi-faceted system influences one's behavior and how he or she view and position themselves in the world (Caprara, Vecchione, Barbaranelli, & Alessandri, 2012). Bandura

(1977) suggested that because intrapersonal influences in which resiliency is a fundamental component are part of the determining conditions in this theory, people help to influence and shape events and the course their lives take. Further, Bandura's (1977) reciprocal determinism model within social cognitive theory outlines that the environment, behaviors, and thoughts all have mutual influence over each other when carrying out an action. This idea was validated by Lugli, Baroni, Gianelli, Borghi, & Nicoletti (2012) in their study in which they conducted two experiments and determined that the simulation of a social context from an outside source influenced both the motor system and how the subject performed during stressful encounters.

In addition to the triadic reciprocal model approach, the social cognitive theory also emphasizes observational learning. This ideal, as Bandura (1989) proposed, suggests that children learn and imitate behaviors they observe in other people. McCall (2003) conducted research that explored student retention rates in comparison to dropout rates. McCall concluded that students that had a positive teacher-student relationship and personalized attention were significant factors in keeping students in school. Indeed, Schultz (2002) indicated that education starts at home, and the behavior of the parents dictated how the child interacts with the world. The home setting, an environment in which children can view as safe and comfortable, can facilitate the understanding of how to cope with stress and undesirable outcomes. Parents serving as positive role models and mentors further build the bridge between self-worth and conformity. Three models accentuated in observational learning, live, verbal, and symbolic, supports the three dominant types of learning, visual, kinesthetic, and auditory. A recent review (Howard-Jones, 2014) showed that over 90% of teachers in five countries (the United Kingdom, the Netherlands, Turkey, Greece, and China) agreed that individuals learn better when they receive information tailored to their preferred learning styles. This is in line with research

conducted by Bell et al. (2016) who compared public school teachers and homeschool educators found students were more likely to respond to and gain a valuable learning experience from instruction that matched their learning style.

Related to resiliency, social cognitive theory also describes self-control. This concept refers to a person's ability to regulate their emotional state (Bandura, 1977). Glanz, Rimer, & Lewis (2002) further defined self-control as "personal regulation of goal-directed performance" (p. 169) and evoked that it "provides opportunities for decision making, self-monitoring, goal setting, problem solving, and reward" (p. 169). Rather than responding to immediate signals from the brain to comfort one's own ego, rational humans can evaluate alternate courses of actions. This type of thinking, according to Casey & Caudle (2013), allows people to refrain from doing things that they might not would have done if they were thinking logically. They further stated that people have the innate ability to learn from their previous situations and use them as models to know how to conduct themselves in future situations.

Furthermore, central to the social cognitive theory is self-efficacy. Self-efficacy refers to a person's level of confidence in their ability to successfully perform a behavior (Caprara et al., 2012). Bandura (2012) added that self-efficacy is the ability for people to change themselves and their behavior for the better. This ability, involving individual or environmental factors, contributes to a person's ability to distinguish between positive and negative emotions. Bandura further added that self-efficacy beliefs are likely to surface when placed into a situation in which a person has to exhibit a unique role to accomplish a task.

Related to self-efficacy, the social cognitive theory also defines human agency. Bandura (1989) saw the concept as the ability for humans to effect change within themselves through their own efforts. Carlson (2002) defined human agency as the change people see within

themselves and their ability to self-regulate and reflect on their behavior. Rottschaefer (1991) expanded on this concept and purported that social cognitive theory and specifically, human agency, provides support in the examination of “important philosophical problems in philosophical psychology” (p. 155). Bandura (1989) asserted that the higher someone perceives their self-efficacy, the higher they will set their goals and strive to achieve things outside their comfort zone. In turn, this zest for challenge reinforces their personal belief of human agency.

Ecology of Human Development

In addition to examining the factors that may relate to resiliency in homeschooled students in light of social cognitive theory, examining the factors that may relate to resiliency in home school students from an ecology of human development perspective also helped to explain key factors in what relates to resiliency in homeschooled students. Paquette and Ryan (2001) explained ecology of human development as “the process and conditions that govern the lifelong course of human development in actual environments in which human beings live” (p. 37). Bronfenbrenner (1994) further stated that human development is the “persons evolving conception of the ecological environment, and his relation to it, as well as the persons growing capacity to discover, sustain, or alter its properties” (p. 37). The ecological model consists of two propositions. The first proposition, as explained by Bronfenbrenner (1994), stated that “human development takes place through processes of progressively more complex reciprocal interaction between active, evolving biopsychological human organism and the person, objects, and symbols in its immediate environment” (p. 38). Indeed, this directly relates to the ideal of child development; the biological, psychological, and emotional changes from birth to adolescence is a complex process that is unique for everyone. As with Bronfenbrenner’s first proposition, there are various predefined developmental stages in child development, namely

newborn, infant, toddler, preschooler, school-aged, and adolescent (Slavin, 2012). However, each stage involves a continuum of unique distinctions that varies for each child. To be effective, these processes must occur on a consistent basis and involve reciprocal interaction between two people such as a parent and child or two children. Although this process involves a pattern of consistent behavior over time, effectiveness lies in the quality of the interaction, not in quantity. Proposition two suggests that the “form, power, content, and direction of the proximal process affecting development vary systematically as a joint function of the characteristics of the developing person” (Bronfenbrenner, 1994, p. 38). The person is not independent of their environment and external forces, but these ideals work together to help shape and develop each person.

Further, adaptations of Bronfenbrenner’s (1994) two propositions and research on human development led to a bio-psycho-social-ecological systems theory. This theory outlined the contextual influences on childhood development. Ungar, Ghazinour, and Richter (2013) proposed three principles are interrelated and a change in one begets a change in all layers. Paquette and Ryan (2001) added that “The interaction between factors in the child’s maturing biology, his immediate family/community environment, and the societal landscape fuels and steers his development. Changes or conflict in any one layer will ripple throughout the other layers” (p. 38). These ripples can take the form of a disruption in education, such as children not receiving education in the way in which they can learn it (Addison, 1992). In fact, Psalm 139 speaks of God’s unique creation – man. God created each of his children in His own image. They are fearfully and wonderfully made in their own right. Psalm 139:13 says, “you knit me together in my mother’s womb” (ESV). God created all His children unique, and as a result, each one is all different in some capacity. Given this fact, all children do not learn the

same. Teachers are charged with understanding and identifying the individual needs of each child and creating lesson plans and delivering instruction based on those individual needs. In fact, Christensen, Horn and Johnson (2011) suggested that when a teacher's educational approach is aligned with a student's intelligence, the student is more likely to grasp the concepts more easily and garner an appreciation for the material. According to renowned psychologist, Howard Gardner, multiple intelligences exist in which a student can possess one or many. Because students can possess one or many intelligences, it can become difficult for educators to teach in a way that matches the intelligence of all students. However, God calls us to reach all students no matter the limitations, imperfections, or inadequacies that may present itself.

To the Jews I became like a Jew, to win the Jews. To those under the law I became like one under the law (though I myself am not under the law), so as to win those under the law. To those not having the law I became like one not having the law (though I am not free from God's law but am under Christ's law), so as to win those not having the law.

To the weak I became weak, to win the weak. I have become all things to all people so that by all possible means I might save some. (1 Corinthians 9:20-22)

God does not want us to have a "survival of the fittest" mentality and only spread His gospel to those that fit the mold of a good student. Further, Addison (1992) stated in addition to looking at the larger environment when considering child development, individuals must look at the interaction of all factors to get a true assessment of development.

Moreover, the study of the ecology of human development lends itself to the concept of resiliency. Bronfenbrenner's (1994) model of ecological development led to the study of resiliency in children. In fact, the study of resilience focuses on just a subset of processes of

human development. These processes involve the experiences that enhance the well-being of those individuals that face adversity. In a previous study (Anthony, 1987), resiliency was characterized by the vulnerabilities of a child and the process in which these vulnerabilities permeated throughout a child's daily life. However, a later study (Ungar, 2011) suggested that resiliency revolves around social-ecological factors that enable the growth and development of a child's well-being during stressful situations. Resilience, according to Rutter (1987), is most concerned with the dynamic processes that involves "multiple risk and protective factors" leading to positive developmental outcomes over an extended period of time (p. 317). Overall, research suggests that children that experience high levels of stress are more likely to experience social withdrawal and have low self-worth (de Anda, Baroni, Boskin, Buchwald, Morgan, Ow, & Weiss, 2000).

Related Literature

Within the realm of resiliency and the relationship with social-connectedness and self-esteem in homeschooled children, many topics in the literature are explored. First, the importance of resiliency is discussed, followed by the importance of social-connectedness. Next, the importance of self-esteem is examined, along with the aspects learning theories. Teaching style and methodology is explored and the thought processes involved in choosing a style and methodology, followed by the motivation to homeschool. Academic achievement and parental involvement is examined in conjunction with choosing curriculum. Lastly, the importance of resiliency in education and future outlook will be examined.

Importance of Resiliency

Although Alvord and Grados (2005) defined resiliency as the identified risk or challenge followed by a defined measure of a positive outcome, they admitted that numerous definitions of

resilience exist. Once such definition was coined by Masten and Reed (2002), in which they suggest that resilience is a pattern of positive adjustment in the presence of substantial individual or environmental threats. However, the verdict is still out on what comprises resilient behavior and how to appropriately measure positive outcomes. Cicchetti and Rogosch (1997) assessed resilience as a multi-dimensional concept that produces a desired effect over a period of time. They further stated that a resilient individual not does simply display separate success at different points in their life but demonstrates positive outcomes across multiple life domains over an extended period of time. Alvord and Grados (2005) expanded on this notion and suggested that possession of resilience indicates coping mechanisms embodied by someone that allows them to sustain setbacks. The commonality of researchers is that resilient people can lead more successful lives despite being at risk for various life events and serious problems (Brooks, 2006). The definition that best meets the needs of this study is examining resiliency as it refers to the positive outcomes despite challenging or threatening circumstances (Brooks, 2006; Masten, 2011; Masten, Best, & Garmezy, 1991), coping positively with traumatic events, and circumventing negative experiences linked with risks (Garmezy Masten, & Tellegen, 1984; Luthar, Cicchetti, & Becker, 2000; Werner, 1992).

Further, according to Masten (2011), resilience theory is focused on an individual's strength and focuses on understanding progressive development and positive outcomes despite adverse events. According to Masten and Coatsworth (1998), resilience is an "inferential and contextual construct" that possess two requirements (p. 208). The first requirement dictates that there must be a significant threat to a person's development. The second requirement is that there must be current or past dangers that have been deemed to be so severe as to cause a disruption to normal development. Opponents of homeschooling suggest that students will not

be afforded the opportunity to learn good citizenship as the traditional school setting is the best place to learn and see appropriate social interaction based on equality and respect (Reich, 2002). Howell (2003) suggested that homeschooling interferes with the overall happiness and well-being of children as parents have complete autonomy and limit their interaction with the outside world and realizing different ways of life.

An essential component of resilience is the notion of risk and the protective factors that help to foster positive outcomes or reduce unlikely outcomes (Fergus & Zimmerman, 2005). Resilient children are associated with various intrapersonal protective factors, cognitive skills as well as emotional and behavioral regulation skills (Werner, 1992). Bernard (1993, 1995) purported that children are born with an innate capacity for resilience and possess these five attributes – social competence, problem solving skills, critical consciousness, autonomy, and sense of purpose. Resilient children work well together, love to play together, and have attainable expectations (Bernard, 1993). Family and peer support as well as the school environment serve a protective role (Brooks, 2006). These protective factors include any personal qualities that a child may possess that allow them to cope with adverse situations. According to many researchers (Baldwin et al., 1993; Brooks, 1994; Jacelon, 1997; Luthar & Zigler, 1991; Masten & Coatsworth, 1998; Rutter, 1987; Wolff, 1995; Wright & Masten, 1997), personal qualities include intellectual ability, easy temperant (Jacelon, 1997; Luthar & Zigler, 1991; Rende & Plomin, 1993; Werner & Smith, 1982; Wright & Masten, 1997, Wyman, Cowen, Work, & Kerley, 1993), autonomy (Jacelon, 1997; Werner & Smith, 1982), self-reliance (Polk, 1997), sociability (Brooks, 1994; Luthar & Zigler, 1991), effective coping strategies (Brooks, 1994; Luthar & Zigler, 1991), and communication skills (Werner & Smith, 1982). It is in these

protective factors that children's strength lies with meeting adversity, managing adversity, and overcoming diversity.

In fact, children that are exposed to a loving and caring environment are more likely to thrive in the face of adversity (Cowen, Work, & Wyman, 1997). Providing "warm, sensitive and cohesive interfamilial exchanges" allows children to feel more connected, confident, and valued (Pianta & Egeland, 1990, p. 331).

Family cohesion is characterized by both emotional bonding between family members and the level of independence they feel with one another. Aspects of emotional attachment, monitoring of family members actions, and showing an active interest in one another are among the many interactions observable among more resilient family units. (Ungar et al., 2013, p. 356)

Ungar et al. (2013) also stressed the importance of considering resilience in the context of interaction effects versus just as just single concepts as it is in the interactions that provide what is necessary to sustain happiness and a positive future outlook. Indeed, Pestalozzi, a Swiss educator during the eighteenth century, proposed that educators must exemplify love to facilitate learning among their students (Gutek, 1995). God is love and since people were made in the image of God, people must emit love to glorify God. Slavin (2012) asserted that early childhood education marks the beginning of critical developments in attitudes, values, and beliefs. Educators are to be facilitators in the learning environment and allow children to permeate freely to cultivate their imagination and innate abilities. Froebel, the founder of the first kindergarten, believed that school should be based on play. He felt, "through play, children exhibit their simple and natural life" (Gutek, 1995, p. 260). Play gave children the freedom they yearned to use their imagination and practice socialization. Indeed, Embry (1997) suggested that 75 to 80

percent of children can use school activities as a support for healthy adjustment and achievement.

Additionally, research (Prince-Embury, 2015) suggested that resiliency is associated with certain risk behaviors in adolescents to include unsafe sexual behavior, smoking, substance abuse, and suicidal thoughts. Prince-Embury (2015) asserted that adolescents with higher resiliency experience less frequent risk behaviors than those with lower resiliency. The Centers for Disease Control and Prevention (2013) posited that the use of alcohol and other drugs contributes to a significant portion of the mortality and morbidity among youth. In fact, its research concluded that 50% of all deaths resulting from motor vehicle accidents, suicides, and homicides stem from alcohol use (Centers for Disease Control and Prevention, 2013). Unplanned pregnancies and sexually transmitted diseases contribute to significant morbidity in adolescents. Ali, Dwyer, Vanner, and Lopez (2010) went on to say that sexually transmitted diseases among adolescents often go undetected and can lead to other serious diseases that may have a grave outcome. Still, smoking is another risk behavior among youth that portrays a lower resiliency. This risk behavior, often seen as a form of social acceptance, has long term physical effects and is associated with stroke, cancer, and heart disease (Centers for Disease Control and Prevention, 2013).

Although research suggests identifying these risk factors are important, some school districts have eliminated risk prevention programs due to insufficient program effectiveness (Pan & Bai, 2009). Ali et al. (2010) recommended a different approach to identifying risk factors. They purported that existing alternative programs that assess the levels of risk factors be eliminated as they do not provide a realistic assessment and should be replaced with alternative programs that can identify the levels of protective factors that safeguard against undesirable

behaviors such as underage drinking, using cigarettes, and illegal drugs. Further, in their research to identify adolescents at risk for smoking, drinking alcohol and illegal drug use, Ali et al. (2010) suggested that policy makers and educators must consider a person's capacity to effectively cope with and overcome the persuasion to participate in risky behaviors. They concluded that adolescents that demonstrated resiliency were less likely to engage in risky behaviors.

Importance of Social Connectedness

Friendships, defined as voluntary and mutually reciprocated relationships between equals, become more intimate—that is, marked by self-disclosure, sharing of personal and private thoughts and feelings, and empathy. In turn, shared interests, activities, and behaviors become more important for adolescent friendships, leading to greater similarity between friends compared to childhood friendships (Kandel, 1978; Sullivan, 1953).

Friendships, marked by an intimate reciprocated relationship between people (Goodwin et al., 2011), usually entails a certain comfort level in which the sharing of personal and private thoughts are commonplace. Socialization is not a new phenomenon among adolescents and the effects it can have on future outcomes. Extensive studies have been closely related to externalizing factors such as alcohol, tobacco, and drug use (Jaccard, Blanton, & Dodge, 2005), sexual attitudes and behaviors (Henry, Schoeny, Deptula, & Slavick, 2007), and delinquency (Haynie & Osgood 2005). However, few studies have really assessed the role that socialization plays in internalizing behaviors such as depressive symptoms and having a poor outlook on life.

By contrast, few studies have addressed the roles of selection and socialization in friends' similarity in internalizing behaviors, such as depressive symptoms. Depression is a particularly relevant facet of adjustment in adolescence. Approximately 15-23% of adolescents meet criteria

for Major Depressive Disorder (MDD) at some point during adolescence (Birmaher et al., 1996; Sund & Wickman, 2011) with even greater proportion of youth (18-40%) experiencing subclinical symptoms of depression (Saluja et al., 2004).

In light of this, Beautrais (2000) suggested that understanding risk factors and protective factors of depression and anxiety helps professionals assess the long-term effects on academic performance, substance abuse, and suicide attempts. Depression and anxiety are prevailing among adolescents between the ages of 12 and 18 (Bosacki, Dane, & Marini, 2007). Girls report more depression and anxiety than boys (Zolog, Jane´-Ballabriga, Bonillo-Martin, Canals-Sans, Hernandez-Martinez, 2011). Research suggests that risk factors related to depression and anxiety are related to stress from parental and family factors (Crespo, 2012). The practice of family rituals and perceived social connectedness have been identified as protective factors for adolescent adjustment. Other protective factors include family activities, family cohesion, and quality friendships. These factors are in line with Brooks and Goldstein (2001) as they suggested that family involvement in all aspects of a child's well-being promotes self-confidence, high self-esteem, and a feeling of belonging.

Importance of Self-Esteem

Self-esteem, how you perceive yourself and your feeling of overall sense of self-worth and personal value, can involve a variety of beliefs and attitudes towards oneself (Slavin, 2012). Maslow, a renowned psychologist with numerous contributions to the field of psychology and education, developed the hierarchy of needs self-esteem theory (Slavin, 2012). In this model, Maslow suggested the following:

- (1) Self-esteem is an essential human need that is vital for survival and normal, healthy development.

- (2) Self-esteem arises automatically from within based upon a person beliefs and consciousness.
- (3) Self-esteem occurs in conjunction with a person thoughts, behaviors, feelings, and actions (Slavin, 2012).

Indeed, studies (Eisenberg, Cumberland, & Spinrad, 1998; Perry, Calkins, Nelson, Leerkes, & Marcovitch, 2012; Shaffer, Suveg, Thomassin & Bradbury, 2012) have suggested that the absence of unsupportive responses along with consistent and high quality supportive and warm reactions may set the tone for best parenting practices that provide the model environment through which to foster and encourage a child's emotional development.

Multiple studies have suggested that the incidence (number of new cases) of depression increases sharply in early and middle adolescence and then declines (Costello, Mustillo, Erkanli, Keeler, & Angold, 2003; Kim-Cohen et al., 2003; Saluja et al., 2004). However, some studies found the highest incidence later in adolescence between the ages of 15-18 (Hankin et al., 1998). These differences may be explained by cohort effects, as suggested by Galambos, Leadbeater, & Barker, 2004). Galambos et al. (2004) found a consistent symptom increase from age 12-16 and a consistent decrease in symptoms at ages 20-23 across four different cohorts. However, between the ages of 16 and 20, some cohorts showed increased depressive symptoms while others showed a decrease. Nevertheless, all studies agreed that depressive symptoms and diagnoses rise substantially in early to middle adolescence (Goodwin et al., 2011).

In fact, in studies conducted by Fortin, Marcotte, Potvin, Royer, & Joly (2006), Goldston et al. (2009), and Sihvola et al. (2008), it was found that depression increases sharply in early and middle adolescence and is associated with multiple negative outcomes.

Importance of Learning Theories

Learning theories, theoretical concepts outlining how data is absorbed, processed, and retained during learning, encompasses several complex psychological reasoning and ideals. Some of the most notable learning theories; behaviorism, cognitivism, and constructivism, all share an important role in the study of learning. Behaviorism, the study of learned behaviors through conditioning, became prevalent during the late nineteenth century. There are two types of conditioning: classical and operant, which were made famous by Ivan Pavlov and B. F. Skinner, respectively (Stead, 2012). Pavlov proposed that behavior is acquired through repeatedly introducing a neutral stimulus with an unconditioned stimulus to the point where the neutral stimulus evokes a response. Ertmer and Newby (2013) suggested that conditioning takes the forms of mentally training a subject that a certain stimulus equates to a desired effect. Similarly, Skinner proposed that if a person realizes a positive consequence for a certain behavior, it will continue that behavior to yield a positive consequence. He deduced that living creatures were motivated by positive reinforcement (Slavin, 2012). Educators embodying a behaviorist view are concerned with what students do as a response to their environment, not with how a student feels or thinks. Although this theory has made significant contributions to pedagogy, such as functional behavior assessments and the role of incentives and reward structures (Shuell, 1986), many researchers (Stead, 2012; Woolfolk, Davis, & Anderman, 2013) propose that this way of thinking is archaic and does nothing to promote the love of learning in children.

Secondly, cognitivism, the idea that memory and prior knowledge play a role in learning, was first developed in Germany during the early 20th century. Cognitivism supports the ideals of unobservable mental processes and the ways in which people process and store information

(Ertmer & Newby, 2013). Information processing theory, a method of learning that describes the processing, storage, and retrieval of knowledge, outlines the steps of retaining information. Initially, information is processed through sensory registers. If this information is not used or found to be beneficial, it is forgotten. If this information proves to be meaningful, it goes through processing and then is stored in either short-term or long-term memory (Slavin, 2012). Having the capacity to process this information directly contributes to Bronfenbrenner's positions of vicarious capability as people can process of what has been observed via live, verbal, or symbolic processes.

Lastly, constructivism, the idea that students can construct knowledge about complex concepts, was first coined by Jean Piaget. Piaget proposed that students fully participate in their learning of acquiring knowledge and using it to build new ideas based on current knowledge and past experience. This transfers some of the responsibility from the teacher to the student as it charges students with being more active in their learning (Gutek, 1995). Kersey & Catherine (2005) suggested that this type of learning bolsters self-esteem and resiliency in children during the formative and adolescent years. In fact, al Mahmud (2013) proposed that the teacher will act as a facilitator helping students to formulate their own meaning and interpretation of ideas instead of dominating discussion and controlling all activities. For this theory to be effective, it is necessary for teachers to properly design learning environments based on the existing knowledge of each student. From this, students are fully capable of discovering principles and manipulating knowledge to solve real-world problems (Abbas, Lai-Mei, & Ismail, 2013).

Homeschool Teaching Style and Methodology

Prominent philosophers such as Johann Pestalozzi, Friedrich Froebel and Maria Montessori paved the way for various teaching styles. In fact, Pestalozzi, a Swiss educator

during the 18th century, deemed that education should be based on a child's interests and needs. He proposed that educators must exemplify love in order to facilitate learning among their students. God is love and since people are made in the image of God, people must emit love to glorify God. Early childhood education marks the beginning of critical developments in attitudes, values, and beliefs. Pestalozzi asserted that parents make up the continuum of educators in a child's life and should be active participants in the education journey. He trusted that parents are a child's first teacher and should be the force behind ensuring they receive an appropriate education. He had faith in a child-centered environment and proclaimed that children learn best by doing and that this learning should be approached using familiar objects and places (Gutek, 2011).

Further, Froebel, a 19th century German educator and coined as founder of the first kindergarten, proposed that "all existence originates with, and is united in, God, the divine and universal Presence" (Gutek, 1995, p. 258). To gain a true understanding of our existence, individuals must first learn the word of God and through His word we must submit to His will. Proverbs 1:7 (ESV) says, "The fear of the Lord is the beginning of knowledge; fools despise wisdom and instruction." God's word must be taught first before all other ideals, principles, and notions. Froebel deemed that God equipped children with all they needed before they were even created to be prosperous in the world. He believed that children possess uniquely defined innate abilities that are developed through proper instruction in a child-centered environment. These innate abilities, as Froebel believed, need to be fostered and nourished in the proper environment under the proper conditions (Gutek, 2011). Educators are to be facilitators in the learning environment and allow children to permeate freely to cultivate their imagination and innate abilities. In fact, the premise of Froebel's school was based on play. Froebel believed, "Through

play, children exhibit their simple and natural life” (Guttek, 1995, p. 260). Play gives children the freedom they yearn to use their imagination and practice socialization. It allows them to explore nature and understand themselves as they interact and permeate throughout nature.

Conversely, Montessori’s educational methodology was more scientific in nature in that she believed in a “prepared environment” (Guttek, 1995, p. 272). She proposed that children yearn to be in a structured environment and learn best by engaging in didactic materials and repetitive play. She purported that children enjoy completing mundane tasks since they yearn routine and structure. Her belief that the early years from birth to age six were the most absorbent years led her to devise a curriculum based on three kinds of activities: practical life, sensory training, and formal skill and studies. It was through these areas that early learners were able to perform basic life functions; process sensory material; and acquire reading, writing, and arithmetic skills. She saw the classroom as a learning institution that encompasses manipulatives and tactile structures that allow children to create realistic schemes (Guttek, 1995).

In fact, the importance of knowing and accepting a learning theory equips teachers with the understanding of how they deliver instruction based on their own beliefs. Some of the most notable learning theories, behaviorism, cognitivism, and constructivism, all share an important role in the study of learning. These theories act as a guide in providing teachers with different methods in which to meet the learning needs of students. In addition, studying the different learning theories provides a deeper insight into the mentality of students and how they process and retain information (Slavin, 2012).

In light of these methodologies and the differences embodied therein, homeschool educators tend towards a blended approach as most appropriate in teaching their children (Davis, 2011). Homeschool educators delve into their own experiences and educational history to

formulate their own unique teaching style. Other research (Dye, 1992; Grady, Rozas, & Bledsoe, 2010; Hanna, 2012) has suggested that homeschool educators choose an all-in-one curriculum as a starting point and then add or eliminate components of the program as they become more comfortable with themselves as a teach and with their children. Davis (2011) further suggested that

There are a number of methodologies that parents adopt in their teaching methods, including trivium classical education, quadrivium classical education, Charlotte Mason, school-at-home, Thomas Jefferson education, multiple intelligences, constructivism, unschooling, radical unschooling, and Montessori. Many parents opt for a blended approach and use a number of sources to develop their curriculum. (p. 29)

Motivation to Homeschool

Although motivation to homeschool varies among families, research suggests that there are commonalities among those that do homeschool. Martin-Chang et al. (2011) suggested the following reasons parents chose to homeschool: the notion that homeschooling offers more individualized instruction and support, parents want to be more involved with what their child is learning, parents want to teach their children about religion and their religious beliefs, parents were fearful of sending their children to school for safety reasons, parents did not want their children to be influenced by their peers, and parents have children with special needs or who are gifted. In fact, recent studies (Jolly et. al., 2012; Kraftl, 2013) suggested the lack of teacher support to students as a prominent reason for parents to homeschool. These motivations were also in line with other theorists and researchers as they have suggested that parental involvement is often motivated by wanting to be actively involved in the construction of schooling (Hoover-Dempsey & Sandler, 1995, 1997; Hoover-Dempsey et al., 2005; Walker, Wilkins, Dallaire,

Sandler, & Hoover-Dempsey, 2005), a relatively strong sense of efficacy for helping the child succeed in school (Grolnick et al., 1997; Hoover-Dempsey & Sandler, 1995, 1997; Hoover-Dempsey et al., 2005; Kay, Fitzgerald, Paradee, & Mellencamp, 1994) as well as the parent's attraction to (or valence toward) schools (Taylor, Clayton, & Rowley, 2004; Walker et al., 2005). Kraftl (2013) discussed the three dimensions that are vital to improve learning and are afforded to children that are homeschooled. There is increased support, a safe and healthy learning environment, and adequate and appropriate support for special needs and gifted children. Parents understand the importance of attention and are confident that they can provide the level of support needed to ensure their child is given the best opportunity at learning. Learning at home can provide rich resources and can permeate into practical application of learned facts. Learning does not have to be restricted to textbooks and a predefined curriculum. Children can be free to explore their interests on particular topics or skip those topics of little importance to them. Kraftl (2013) suggested that learning happens inside and outside the house and thus covers a full spectrum of knowledge, not just reading, writing, and arithmetic.

Of these reasons, the most prevalent reasons parents were motivated to homeschool their children were for religious reasons or they had children with special needs. In fact, Schultz (2002) proposed that parents are a child's first teacher. Schultz (2002) suggested that "children are Gods homework assignment to parents" (p. 61). In addition, Shultz discussed the various roles of the home, church, and school as it relates to kingdom education. Schultz outlined nine principles of kingdom education.

The education of children and youth is the primary responsibility of the parents;

The education of children and youth is a 24-hours-a-day, 7-days-a-week process

that continues from birth till maturity; The education of children and youth must

have as its primary goals the salvation of and discipleship of the next generation; The education of children and youth must be based on God's Word as absolute truth; The education of children and youth must hold Christ as preeminent in all life; The education of children and youth must not hinder the spiritual and moral development of the next generation; The education of children and youth, if and when delegated to them by parents, must be done by teachers chosen with utmost care to ensure that they all follow these principles; The education of children and youth results in the formation of a belief system or worldview that will be patterned after the belief systems or worldviews of the persons teachers; and The education of children and youth must have a view of the future that includes eternal perspective. (Schultz, 2002, p.59)

Further, those parents that were motivated to homeschool their children because they had special needs were concerned that their children would not receive the attention and resources they need to thrive. According to IDEA 2004, students with disabilities must be provided a free appropriate public education in the least restrictive environment (Woods, 2014). The least restrictive environment is one that, to the greatest extent possible, is capable of educating special needs students with appropriate supplementary aids and services alongside their typically-developing peers in the same schools as if no disability existed (HSLDA, 2016). There has been a steady upward trend since the late 1980s to place students with disabilities in general education classrooms and subsequently a downward trend in placing these students in resource rooms, separate classes, or separate facilities (Bruhwiler & Blatchford, 2011). Cogan (2010) advocated that students with disabilities learn best when taught alongside their typically-developing peers. They have a greater opportunity to imitate and learn from good peer models, which will facilitate

increased opportunities for social interaction, imaginative play, and daily living skills. However, the ongoing debate around inclusion stems from the fact that while inclusion sounds good on paper, it is usually not practical in the classroom. Teachers feel ill-equipped to meet the demands of effectively teaching students with disabilities. The toll of managing their current workload and those of students with IEPs is both daunting and too convoluted for teachers to fathom (Obiakor, Harris, Mutua, Rotatori, & Algozzine, 2012). Martin-Chang et al. (2011) suggested that these students are often neglected and overlooked as their disabilities pose too much of a burden to teachers that are already inundated with other classroom responsibilities.

Another important attribute of homeschooling is class size. A small class size affords teachers the opportunity to intently observe children's interests and develop lessons and activities that address individual learning styles, strengths, and areas of concern. Parents, as well as teachers, understand the importance of small classes and a small student-teacher ratio. A large class size, along with student-teacher ratios, places an unrealistic expectation on the teacher. Research suggests that when a class is larger and ratios are inadequate, individual attention for each student decreases, and children often fall victim to the constraints of coping with an environment in which resources are over extended (Tobin, Wu, Davidson, 1987). Shim, Hestenes, and Cassidy (2004) agreed and asserted that teachers get so inundated with trying to manage the class that there will be very little time for purposeful instruction. It is intuitive that a smaller class size and student-teacher ratio would be best to achieve desired outcomes. Small class sizes and higher student-teacher ratios affords teachers the opportunity to intently observe children's interests and develop lessons and activities that address individual learning styles, strengths, and areas of concern.

Overall, no matter what the motivation to homeschool, parents see it as a lifestyle choice (Hurlbutt, 2010). Schooling does not only take place in the confinement of four walls or even just in the home setting. Learning takes place all around and is embedded in everything individuals see, do, and hear (Hull, 2009). Parents are best equipped to meet these needs and educate their children (Schultz, 2002). In fact, Schultz charged parents with the responsibility of educating their children and purported that this was Christ's intended purpose for education.

Deuteronomy 6: 4-7 says

Hear, O Israel: The LORD our God, the LORD is one. Love the LORD your God with all your heart and with all your soul and with all your strength. These commandments that I give you today are to be on your hearts. Impress them on your children. Talk about them when you sit at home and when you walk along the road, when you lie down and when you get up.

Academic Achievement and Parental Involvement

Producing high-quality, well-educated students is a controversial topic in today's society. Because teachers have a hard time producing high-achieving students, researchers speculate about the ease of parents to homeschool that may not be degreed or have an education background (Grant, Stronge, & Ward, 2011). Most parents do not have a degree in education or the training necessary to teach a child. Cogan (2010) suggested that even though some parents may lack these credentials, what they have to offer is much more than a traditional teacher can offer. A parent is invested in her child's well-being and academic achievement. Taylor-Hough (2010) suggested that parents often learn alongside their children, and teaching becomes a learning experience for all of them. When one does not know something that they want to know,

they study it. That is what parents do; they research and learn topics that they do not understand so that they may teach it to their children.

The ability of educators to cultivate academically high-achieving students is an important topic in today's educational world. Researchers have devoted particular attention to homeschool academic achievement and how homeschool educators affect that achievement. Several studies point to the high achievement of homeschool students, particularly regarding standardized tests like the ACT (Cogan, 2010). Taylor-Hough (2010) went so far as to say, "If parents choose to homeschool because they are looking for increased academic achievement as measured by standardized tests, the research shows that any method of homeschooling will most likely raise their child's test scores above those of their traditionally schooled counterparts" (p. 6). The fact is astounding given that some homeschool parents do not participate in yearly standardized testing due to the stigma that standardized testing is not a true measure of a person's knowledge and ability. Ray (2004) noted, "In study after study, the homeschooled scored, on average, at the 65th to 80th percentile on standardized academic achievement tests in the United States and Canada, compared to the public school average of the 50th percentile" (p. 6). Blok (2004) took a more cautious stance in his research but still supported the academics of homeschooling, stating, "Scientifically speaking, there is nothing to support the view that home schooling is an academically inferior educational option . . . learning is possible – if not more effective – at home" (p. 50).

However, additional studies have found that the distinguishing feature between low and high academically achieving students has less to do with the type of education and more to do with a parent's involvement and expectation for their student's academic achievement (Barwegen, Falciani, Putnam, Reamer, & Stair, 2004; Dye, 1992; Fan & Chen, 2001). For

example, parental involvement has been found to improve student attitudes toward school, homework practice, school attendance, and academic achievement and is therefore a valuable component of children's engagement, learning, and education (Desimone, 1999; Feuerstein, 2000). Hill and Taylor (2004) stated, "It is well established that parental school involvement has a positive influence on school-related outcomes for children" (p. 161). In his meta-analysis of parental involvement literature, Jeynes (2011) found that in both elementary, middle, and high school students there was a relationship between parental involvement and student achievement. Jeynes (2011) also found that parental involvement is associated with "higher achievement for racial minority students and for both boys and girls. Statistically significant results emerged consistently across the various kinds of academic measures, although there was some degree of variation in the effect" (p. 43).

What constitutes parental involvement varies considerably; however, across the literature and therefore the findings of parental involvement, studies are often challenging to compare (Ho Sui-Chu & Willms, 1996). When examined as a multidimensional concept, however, parental involvement has the biggest effect on academic achievement when the involvement is accomplished in the home, rather than the school (DePlanty, Coulter-Kern, & Duchane, 2007; Ho Sui-Chu & Willms, 1996). Ray (2010) also found that three variables of interest were positively associated with student achievement on academic tests: greater structure in the program, more funds spent on educational materials (e.g., textbooks, tutoring), and more time spent in "structured learning time" (defined as "time during which the child is engaged in learning activities planned by the parent; it is a time during which the child is not free to do whatever he or she chooses") (p. 19).

However, while several studies do tout the positive academic effects of homeschooling,

Martin-Chang et al. (2011) pointed out that two of the most cited studies regarding homeschool academic achievement, Rudner's (1999) study and Ray's (2010) study, have methodological flaws. For example, Martin-Chang, Gould, and Meuse (2011) stated,

Rudner compared the scores of a specially selected group of homeschooled children to test norms established with a general population of public school children [and] Ray's (2010) study was subject to many of the same limitations as Rudner's (1999).

Specifically, the population comprised only those homeschoolers who used the services of academic testing companies. (pp. 195-196)

Martin-Chang et al. (2011) did go on to say, however, that while Rudner (1999) and Ray's (2010) studies did have problems, Rudner's data did show that students who had been exclusively home educated had higher overall academic achievement than students who began their education in a traditional public school and then transitioned to homeschooling. Martin-Chang et al. (2011) also found that Ray's (2010) study was accurate in its assessment of the positive effects structure had on a student's academic achievement. In their own study, Martin-Chang et al. (2011) found that "structured homeschooling may offer opportunities for academic performance beyond those typically experienced in public school" (p. 200) but suggested that additional research be done in this area.

Parental Involvement in Curriculum Choice

Homeschooling parents can educate their children according to their own beliefs, values, and expectations. With this freedom comes the ability to choose any curriculum. Choosing appropriate, quality curriculum is an important role of the homeschooling parent and helps to set the stage for what a child learns. Indeed, Schmoker (2011) purported that curriculum is the single largest factor that affects student learning. While a school district may approve a

curriculum that teachers must adhere to (Olivant, 2015), homeschooling parents are able to align their curriculum choice and instructional design to best meet the needs of the children and the academic program in which they institute. The limitation of deviating from the curriculum because students are designated to learn certain concepts in preparation for end-of-course tests, confines what and sometimes how a student hears, understands, and restates information. However, homeschooling families have the autonomy to cover the same concepts but have the flexibility to assign personal values and preferences, empirical research, and their child's interests, among other factors (Hannah, 2012; Lips & Feinberg, 2008; Ray, 2005).

Moreover, in a study conducted by Thomas (2016), 45% of the parents surveyed based their homeschool routine and schedule on the child's unique learning style. Because of their flexibility in teaching, homeschool parents can adapt their teaching to match the learning style of their child. Parents have the choice to use the latest research and teaching methodologies endorsed by educational theorists and decide which philosophy or mixture thereof is most appropriate (Cai, Reeve, & Robinson, 2002). Traditional teachers are not afforded the opportunity to implement new teaching methodologies throughout the course of the year as they are bound by the curriculum set forth. In Kunzman's (2012) paper, Kunzman expressed that the efforts to reform education are not working. Kunzman stated,

The irony is that the most vocal school reformers today, the ones who rail so passionately against the status quo, are ultimately seeking to replace it with another singularly prescriptive vision of schooling, one driven by a testing regimen that narrows the learning experience even further. (p. 128)

Dodge (1995) further stated that

One effective strategy for achieving a quality program is the use of a developmentally appropriate curriculum. A well-defined curriculum framework, based on child

development theory, provides early childhood educators with a structure for planning a program that encompasses all aspects of a child's development and meets professional standards. (p. 1171)

Summary

Although research in homeschooling has escalated within the past decade, there continues to remain untapped research that has not been explored (Brooks & Goldstein, 2001; Kersey & Catherine, 2005; Prince-Embury, 2010; Prince-Embury & Courville, 2008). To better understand this population, this correlational design explored if a predictive relationship exists between social-connectedness and resiliency and self-esteem and resiliency in homeschool students within the framework of Bandura's social cognitive theory and Bronfenbrenner's ecology of human development theory.

Even though the idea of homeschooling has proliferated (Bauman, 2001), there is still little research on this topic as homeschoolers are difficult to research (Collom & Mitchell, 2005). Kunzman and Gaither (2013) agreed and purported that diversity and limited access to data are huge obstacles in researching the homeschool community. Because homeschool families are not part of a formalized school system, statistical data on success factors are not gathered (Isenbeg, 2007). Homeschool regulations and requirements vary by county and state which make it difficult to track the practices of each homeschool. Further, because there is not a standard curriculum mandated for homeschool use, homeschool families are free to decide what curriculum to use and how to use it (McReynolds, 2007). To add, many homeschool families consider "daily living" a part of school and thus many different activities fall under the realm of homeschooling (Kunzman & Gaither, 2013).

Even with the research conducted, some researchers question the quality of the research due to issues with sampling, non-representative groups, lack of experimental design, and little empirical evidence (Murphy, 2014). Isenberg (2007) suggested that “the political history of homeschooling has constrained the data that can be collected” (p. 399). While most research has focused on curricular choices, parental pedagogical practices, parental motivation, socialization, and homeschooling outcomes as they relate to student achievement, little research has been conducted on resiliency. As a result, there are several gaps in literature that exists. One such gap is the relationship between social-connectedness and resiliency and self-esteem and resiliency in homeschooled students.

Although there has been numerous studies conducted on resiliency in students (Brooks & Goldstein, 2001; Kersey & Catherine, 2005; Prince-Embury, 2010; Prince-Embury, 2015; Prince-Embury & Courville, 2008; Prince-Embury & Saklofske, 2014), very few have considered the homeschool population. However, these studies contributed a wealth of knowledge to the field of psychology and education. In fact, from these studies, several findings have emerged. First, students benefit from having and being a part of supportive environments (Kersey & Catherine, 2005). Bluestein (2001) suggested that academic success and healthy social and emotional development of students all begin with positive, meaningful connections. Having a “peaceful environment” to include teachers speaking positive words and touching children in positive ways can help to release serotonin which helps them feel safe and important (Kersey & Catherine, 2005, p. 55). In addition to teachers providing a supportive environment for children, Pestalozzi asserted that parents make up the continuum of educators in a child’s life and should be active participants in the education journey (Guttek, 2011). God calls parents to train up children according to His plan. Proverbs 22:6 says, “Train up a child in the way he

should go; even when he is old he will not depart from it.” Parents lay the foundation upon which learning is absorbed and applied in classroom instruction. Moreover, social supports extend outside of teacher and parent involvements. Peers become a forefront leader in socialization and a vital source of support during the adolescent years and beyond (Bokhorst, Sumter, & Westenberg, 2010; Furman & Buhrmester, 1992; Hartup & Stevens, 1997).

Secondly, children benefit from using their inner resources and abilities to stimulate self-worth. These inner resources and abilities not only improve self-esteem and promote self-confidence, but also provide resiliency in children that enable them to have a positive outlook on the future and how they fit into it (Kersey & Catherine, 2005).

What research does reveal is that more parents are beginning to homeschool (National Center for Education Statistics, 2014), due to the inflexibility of the traditional school system to provide the resources, staff, and funding that children need to learn, thrive, and succeed. Through various information portals, parents are feeling more empowered to take on the responsibility of teaching their children. As homeschooling continues to become a viable option for educating children, it will be important to study the outlook these students have regarding their future.

CHAPTER THREE: METHODS

Overview

In this section, the problem was addressed via quantitative survey methods, exploring if a predictive relationship exists between social-connectedness and resiliency and self-esteem and resiliency on homeschooled students. Data used to support the hypotheses testing was derived from three surveys about student perceptions of their social-connectedness, self-esteem, and resiliency. The subsequent discussion includes the methodology details, the survey site and the target population of interest, qualifications of the researcher, a description of the study subjects, the survey instruments, and procedures used in data collection including sampling procedures, instrument administration procedures, known limitations of the proposed methodology, and data organization.

Design

This quantitative study employed a predictive correlational design. A predictive correlational design was chosen for this study in lieu of other research designs because it offers the most suitable approach for examining relationships between variables. Leedy and Ormond (2010) purported that the purpose of conducting correlational research is to explore “the extent to which differences in one characteristic or variable are related to differences in one or more other characteristics or variables” (p. 45). Gall, Gall & Borg (2007) stated that two major purposes of conducting a correlational study are to “explore casual relationships between variables and to predict scores on one variable from research participants’ scores on other variables” (p. 337). Using this statistical test yields the correlation coefficient R . This study examined whether social-connectedness or self-esteem are good predictors of resiliency in students that are homeschooled.

Research Questions

The following research questions guided this quantitative study:

RQ1: How accurately can resiliency, as measured by the Child and Youth Resilience Measure, be predicted by social-connectedness, as measured by Lee and Robbins Social Connectedness Scale, in homeschooled students?

RQ2: How accurately can resiliency, as measured by the Child and Youth Resilience Measure, be predicted by self-esteem, as measured by Rosenberg's Self-Esteem Scale, in homeschooled students?

Null Hypotheses

The null hypotheses for this study were:

H₀₁: There is no significant predictive relationship between resiliency, as measured by the Child and Youth Resilience Measure, and social-connectedness, as measured by Lee and Robbins Social Connectedness Scale, in homeschooled students.

H₀₂: There is no significant predictive relationship between resiliency, as measured by the Child and Youth Resilience Measure, and self-esteem, as measured by Rosenberg's Self-Esteem Scale, in homeschooled students.

Participants and Setting

The participants for this study were drawn by the researcher from a convenience sample of middle and high school homeschooled students participating in a local cooperative located in central North Carolina. The cooperative consisted of middle-class, two-parent household families located outside of Wehawken County. The sample was drawn from a population of 112 homeschooled students that attended a homeschool cooperative or social activity at least one day

a week. The homeschool cooperative consisted of academic and elective classes of which each student could take two classes.

For this study, the researcher aimed to sample 98 students from the population but only garnered 32 participants. According to Gall et al. (2007, p. 176), 30 is the smallest sample size needed for a correlation study. The demographic makeup of the students in this study was approximately 95% Caucasian, 5% Other, 46% female, and 54% male. All the students were United States citizens and lived in counties within central North Carolina. A drawing was conducted to enhance participation. Participants were a minimum of 14 years old and no older than 18 years old. Eighty-one percent of participants were between 14-16, while 19% were 17 or 18. The academic backgrounds of the students varied. Some students previously attended traditional school (public or private), while some students never attended traditional school. The parents provided most of the schooling for their children with some outside support from homeschool cooperatives, tutors, and sports camps. The population from which the research sample was selected were members of a local homeschool cooperative located in a suburban county in central North Carolina. The site of the homeschool cooperative was selected as the setting for this study based on convenience to gather all participants at one time in a central location. The participants were familiar with this setting and felt comfortable in that environment. Participants completed the instruments in a well-lighted, auditorium-style classroom inside the building.

Instrumentation

Experimental data for this correlational study came from three instruments. Resiliency was measured by the Child and Youth Resilience Measure, social-connectedness was measured by Lee and Robbins' (1995) Social Connectedness Scale, and self-esteem was measured by

Rosenberg's (1965) Self-Esteem Scale. A demographic information form was used to collect demographic information for each participant to include gender, date of birth (month/year), age, grade, race, family status (adults living in household), number of years homeschooled, and if they previously attended a traditional school (public or private).

Child and Youth Resilience Measure

Resiliency was measured by the Child and Youth Resilience Measure developed by Ungar and Liebenberg (2011). This instrument measures a person's ability to cope with and bounce back from various life stressors. The instrument consists of 28 questions measured on a five-point Likert scale. The instrument is administered via pencil and paper and electronically. Responses ranged from one (not at all) to five (a lot). This instrument has three subscales: personal skills, caregiving, and sense of belonging. There are no reverse questions in this instrument. All responses are summed to produce a total score. The lowest possible score is 28 and the highest possible score is 140. A high score indicates that a person had high resiliency. A low score indicates that a person has low resiliency. This scale has been used in multiple research studies (Daigneault, Dion, Hebert, McDuff & Collin-Vezina, 2013; Liebenberg, L., Ungar, M., & Van de Vijver, 2012) to assess the resiliency in youth participating in various activities. This scale is appropriate for use with people ages 9-18 years of age and has a reliability alpha ranging from .80 to .91 (Ungar & Liebenberg, 2011).

The Social-Connectedness Scale

Social-connectedness was measured by the Social-Connectedness Scale developed by Lee and Robins (1995). This instrument assesses the degree to which youth feel connected to others in their social environment. The instrument is administered via pencil and paper and electronically. The instrument consists of eight items measured on a six-point Likert scale.

Responses ranged from one (strongly agree) to six (strongly disagree). Reverse coding is necessary as all items are reversed. The responses are then summed for a total score. The highest possible score is 48 and the lowest possible score is eight. A high score indicated that a person had more connectedness to others. A low score indicates that a person is less connected to others. This scale is appropriate for use with people ages 14-18 years of age and has a reliability alpha equal to .91 (Lee & Robbins, 1995).

Rosenberg's Self Esteem Scale

Self-esteem was measured by the Self-Esteem scale developed by Rosenberg (1965). This instrument measures a person's self-esteem, self-worth, self-respect, and ability. The instrument consists of 10 items measured on a four-point Likert scale. The instrument is administered via pencil and paper and electronically. Responses range from three (strongly agree) to zero (strongly disagree). Items 2, 5, 6, 8, and 9 are reverse coded. Reverse coding is necessary to ensure scores are feasible. All responses are summed to produce a total score. The highest possible score is 30. The lowest possible score is zero. A high score indicates a person has a high self-esteem. A low score indicates that a person has a low self-esteem. This scale is well established and has been frequently used since its creation in 1965. This scale is appropriate for use with people ages 14-18 years of age and has a reliability alpha in the range of .90 to .92 (Rosenberg, 1965).

Procedure

Prior to data collection, the researcher obtained Institutional Review Board (IRB) approval. IRB approval was needed since the participants of the study were minors (see Appendix B). A convenience sample of 32 was used from a population of 112. This sample was used since the researcher wished to study students between the ages of 14 and 18. The

researcher obtained a list of members in the homeschool cooperative to include names and ages from the cooperative director and selected the participants that fit the parameters of the study. The study involved little to no risk for participants as they were not asked to write their names on any surveys. A demographic information form was also administered by the researcher but did not ask for the name of participant. Further, the instruments did not involve questions that asked participants for sensitive or confidential information that was damaging to their reputation. Consent forms were provided to and signed by parents and participants. Parents were informed of the purpose of the study as well as the voluntary nature of the study.

The researcher asked permission to administer the surveys at the homeschool cooperative location. Some surveys were administered at an alternate site to meet the needs of the participant. The researcher administered the surveys to the participants during the fall of 2017. The participants were asked to sit at least one seat apart to ensure validity of the responses. The surveys were passed out faced down and students were not allowed to turn them over until all surveys have been passed out. Once all the surveys were passed out, the researcher provided instructions on how to complete the surveys. Once instructions were given, the researcher asked the participants if they had any questions. Once questions were asked and answered, the students were told to turn over their surveys and begin. Participants were allowed to ask questions of the researcher during the survey to seek clarification of questions. Once the students finished all surveys, they were asked to bring their surveys to the front of the room. The researcher also administered the instruments electronically for those participants that could not take them at the homeschool cooperative location.

Data were maintained by the researcher in a digital spreadsheet format amenable to manipulation with statistical software and coded and systematically organized to facilitate

analysis. Scoring of survey responses were greatly facilitated by the standardized nature of the instruments yet still required translation into codes. Data were handled immediately in coded form to protect anonymity. The records of the study were kept private. No information was included that would make it possible to identify any subject in any report subsequently published. Research records were securely stored and only the principal investigator retained access to the records. All paper copy records and digital media were stored in locked cabinets, while all web-based and computer records were password protected.

Participant names and information were collected on consent forms and not on answer sheets in either paper or web-based formats. Web-based surveys had no mechanism by which to collect subject names. Participants using paper surveys were instructed to make no marks on the survey and to not place their name anywhere on the answer sheet so that all student responses remained anonymous. As such, the signed consent form was the only record linking the subject and the research, but there was no link between the participant and participant responses. Consent forms were separated from the data and stored in locked cabinets.

The integrity of the research project was maintained by keeping accurate, permanent, and auditable records of all experimental protocols, data, and findings. Research records and data were permanently stored by the principal investigator in locked cabinets. Data that may be used for future research purposes remained subject to constraints imposed by the homeschooling collective. Data that were deemed as no longer needed for analysis or for future research purposes, including computer sheets and other papers, were destroyed by shredding. The students were allowed to leave the classroom once complete. Once all surveys were completed, the researcher placed all surveys in a sealed envelope. The researcher returned to the

site in which analysis was conducted and secured the surveys in a locked container. The researcher used SPSS to conduct data analysis.

All participants received the same surveys including the same questions in the same order, the same consent form, and the same offer to participate in the study. During the introduction, the researcher thanked the participants, explained the purpose of the study, noted the amount of time estimated to complete the surveys, and confirmed the voluntary nature of the study.

To increase the likelihood of the sample participating in the study, the researcher offered the participants a chance at winning one of two \$25 Amazon gift cards as an incentive for participating in and completing the study. For those participants that wished to partake in the drawing, they were issued a numbered raffle ticket. Each raffle tickets consisted of two parts. The participant took one part and the researcher retained the other part. Each part had the same number on it. The recipients of the drawing were selected at random by a third party. This method of selection helped to decrease researcher bias or influence. Surveys took approximately 20 minutes to complete and total data collection, screening, and input took approximately two weeks.

Data Analysis

Following the data collection process, data screening was conducted to detect any missing values (Warner, 2013). All statistical data processing was conducted using the most current version of IBMs SPSS. Gender was a part of demographic questionnaire and responses were added to each survey response. Counts of those who completed the survey were charted. There were no missing values as each participant completed every question in the surveys and questionnaire.

A bivariate regression correlation was used to examine the research questions (1) How accurately can resiliency, as measured by the Child and Youth Resilience Measure, be predicted by social-connectedness, as measured by Lee and Robbins Social Connectedness Scale, in homeschooled students? and (2) How accurately can resiliency, as measured by the Child and Youth Resilience Measure, be predicted by self-esteem, as measured by Rosenberg's Self-Esteem Scale, in homeschooled students? Bivariate regression was a reliable technique to use as it explores if a predictive relationship exists between a criterion variable and a predictor variable (Warner, 2013).

The rationale for using this statistical procedure to predict whether social-connectedness or self-esteem are predictors of resiliency in homeschool students is evident as this study aimed to determine if a relationship exists between two quantitative variables (Gall et al., 2007). Bivariate regression analysis fit this purpose as it is a widely used technique in educational research in which the criterion variable is quantitative (Likert scale) and the predictor variables are usually quantitative (Gall et al., 2007). The criterion variable was measured using a five-point Likert scale and the criterion variables, social-connectedness and self-esteem, were measured using a six-point and four-point Likert scale, respectively.

Prior to conducting the analysis, the following assumption tests were conducted – normality, linearity, homogeneity of criterion variables, and homogeneity of variances. Both the criterion variable and predictor variables were interval values. Normality was tested by looking at the univariate distribution of scores on a histogram. A scatter plot between the predictor variables and criterion variable was used to test for extreme bivariate outliers and bivariate normal distribution. The observations within each variable were independent. Linearity was assessed using a scatter plot of all pairs of variables (X_1, X_2), (X_1, Y), and (X_2, Y). The pairs of

variables proved to be linear, and the scatter plot indicated a positive relationship. Data were screened for outliers using scatterplots. Homogeneity of the criterion variables was assessed by grouping the participant scores from one criterion variable and running a separate bivariate regression for each group. The assumption held and the slopes were similar for the two groups. Homogeneity of variances was assessed using scatter plots to determine if the range of Y scores varied across levels of X. Bivariate and multivariate outliers existed. However, due to the small sample size, the analysis was more valid with the outliers included. Further, multicollinearity was considered since the study consisted of two predictor variables. Multicollinearity was not evident.

Using SPSS, the results of the bivariate regression analyses yielded a model summary, ANOVA, coefficients, and residual statistics. From these tables, the researcher determined the intercept and slope for each predictor variable. These values formed the basis for the regression equation $Y_1 = b_0 + b_1X_1$ and $Y_2 = b_2 + b_3X_3$. The regression equations answered the question, for each unit of increase in X_1 , and X_2 how many units of increase are predicted on Y_1 and Y_2 . A positive b indicated a positive correlation between X and Y . A negative b indicated a negative relationship between X and Y . R , R^2 , and R^2_{adj} were also reported. R^2 , or the effect size, outlined the percentage of variance in the criterion variable when both predictor variables were used as predictors. A Bonferroni correction was used since two significance tests were performed. This method reduces the risk of Type 1 error when more than one significance test is run (Warner, 2013). The per comparison alpha level is $PC_\alpha = .05 / 2$ or $p = .025$. The null hypotheses (1) There is no significant predictive relationship between resiliency, as measured by the Child and Youth Resilience Measure, and social-connectedness, as measured by Lee and Robbins Social Connectedness Scale, in homeschooled students and (2) There is no significant

predictive relationship between resiliency, as measured by the Child and Youth Resilience Measure, and self-esteem, as measured by Rosenberg's Self-Esteem Scale, in homeschooled students will be rejected or fail to be rejected based on the p value of $p < .025$. Descriptive statistics (M , SD), number (N), degrees of freedom (df), Observed r value (r), F value (F), significance level (p), Coefficient (B), standard Error, Beta, regression equation, and power were reported.

CHAPTER FOUR: FINDINGS

Overview

This chapter established how quantitative measures were used to examine and draw conclusions about how accurately resiliency of homeschooled students can be predicted by social-connectedness and self-esteem. Research questions and null hypotheses were reviewed, and means to process and analyze data as discussed in the previous chapter were followed with a description of statistical procedures, data screening procedures, and assumptions for bivariate regression analysis. Methods and statistical techniques used were described as well as inferences that were drawn from them, and results were organized by each hypothesis.

Research Questions

The following research questions guided this quantitative study:

RQ1: How accurately can resiliency, as measured by the Child and Youth Resilience Measure, be predicted by social-connectedness, as measured by Lee and Robbins Social Connectedness Scale, in homeschooled students?

RQ2: How accurately can resiliency, as measured by the Child and Youth Resilience Measure, be predicted by self-esteem, as measured by Rosenberg's Self-Esteem Scale, in homeschooled students?

Null Hypotheses

The null hypotheses for this study are:

H₀1: There is no significant predictive relationship between resiliency, as measured by the Child and Youth Resilience Measure, and social-connectedness, as measured by Lee and Robbins Social Connectedness Scale, in homeschooled students.

H₀₂: There is no significant predictive relationship between resiliency, as measured by the Child and Youth Resilience Measure, and self-esteem, as measured by Rosenberg's Self-Esteem Scale, in homeschooled students.

Descriptive Statistics

The descriptive statistics for the predictor and criterion variables are found in Table 1 below. Resiliency, measured by the Child and Youth Resilience Measure, assessed the participants ability to cope with and bounce back from various life stressors. The instrument consisted of 28 questions measured on a five-point Likert scale. The lowest possible score was 28, and the highest possible score was 140. A high score indicated that a person has high resiliency. A low score indicated that a person has low resiliency. The mean of 4.38 indicates that on average the participants had high resiliency, with a .30 deviation from the mean. Further, social-connectedness, as measured by the Social-Connectedness Scale, assessed the degree to which youth felt connected to others in their social environment. The instrument consisted of eight items measured on a six-point Likert scale. The highest possible score was 48, and the lowest possible score was eight. A high score indicated that a person has more connectedness to others. A low score indicated that a person was less connected to others. The mean of 4.64 indicates that on average the participants had high social-connectedness, with a .70 deviation from the mean. Lastly, self-esteem, measured by the Rosenberg's self-esteem scale, measures a person's self-esteem, self-worth, self-respect, and ability. The instrument consisted of 10 items measured on a four-point Likert scale. The highest possible score was 30. The lowest possible score was 0. A high score indicated a person has a high self-esteem. A low score indicated that a person has a low self-esteem. The mean of 3.39 indicates that on average the participants had high self-esteem, with a .29 deviation from the mean.

Table 1

Descriptive Statistics

	Mean	Std. Deviation	N
Resiliency	4.38	.30	32
Self Esteem	3.39	.29	32
Social Connectedness	4.64	.70	32

Results**Data Screening**

Two bivariate regressions were conducted to determine if there was a significant predictive relationship between (1) resiliency and social-connectedness and (2) resiliency and self-esteem. The data were screened for completed surveys and for participants who met the age requirement. A minimum sample size of 30 was needed (Gall et al., 2007, p. 176), and 32 participants completed the survey. All data collected were used for the study.

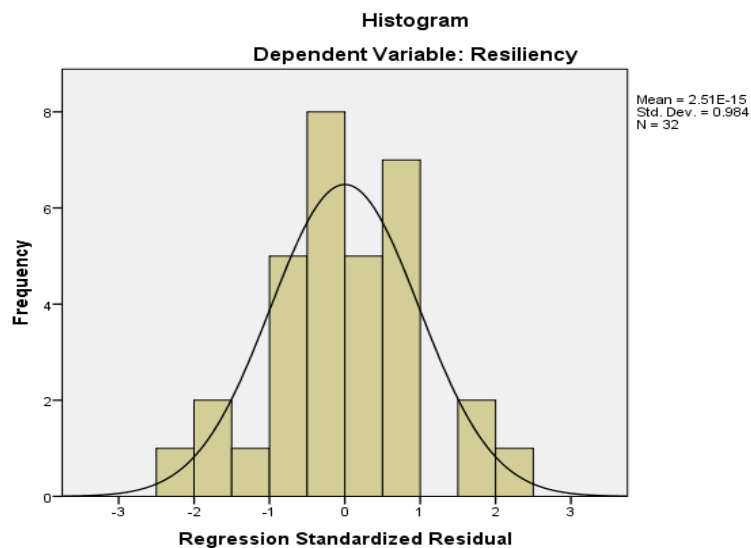
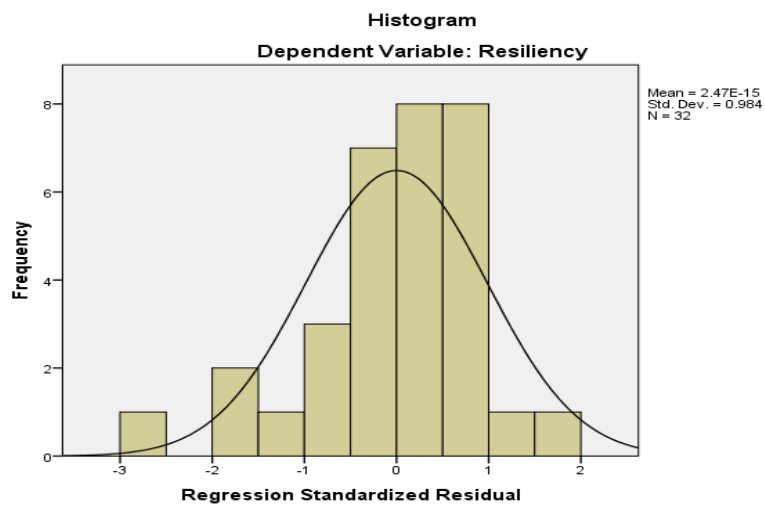
Assumptions

Using SPSS, the data were analyzed for the assumptions of normality, linearity, bivariate outliers, homogeneity of criterion variables, homogeneity of variances, and multicollinearity. Normality was examined using histograms. The normality assumption was deemed tenable by the Shapiro-Wilk test for normality and a visual inspection of the histograms (see Table 2 and Figures 1 and 2).

Table 2

Shapiro-Wilk Test for Normality

	Statistic	df	Sig.
SocialConnectedness	.977	32	.704
SelfEsteem	.977	32	.705

*Figure 1.* Histogram for Social-Connectedness*Figure 2.* Histogram for Self-Esteem

Linearity, homogeneity of criterion variables, homogeneity of variances, and outliers were assessed using a scatter plot. The scatterplots (see Figures 3-5) demonstrated the presence of outliers; however, the researcher determined to retain all outliers due to the small sample size.

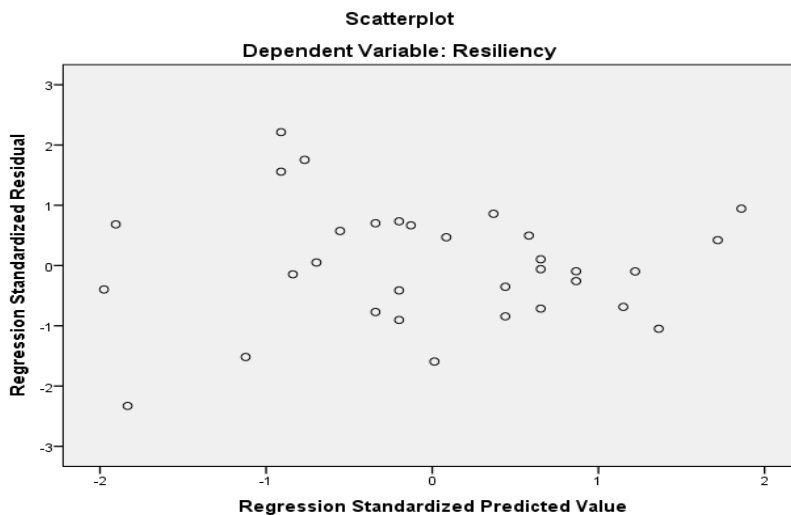


Figure 3. Scatterplot for Social-Connectedness

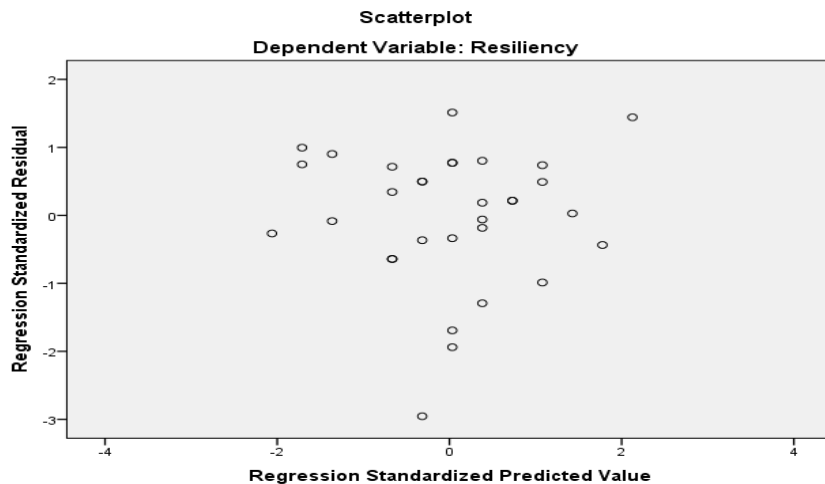


Figure 4. Scatterplot for Self-Esteem

Multicollinearity was assessed using the tolerance and variance inflation factor (VIF). The Multicollinearity was not upheld because multicollinearity among the predictor variables was low (self-esteem, $T = 1.00$, $VIF = 1.02$; social-connectedness, $T = 1.00$, $VIF = 1.02$).

Null Hypotheses One

H₀₁: There is no significant predictive relationship between resiliency, as measured by the Child and Youth Resilience Measure, and social-connectedness, as measured by Lee and Robbins Social Connectedness Scale, in homeschooled students.

A bivariate linear regression analysis was conducted on the data of 32 participants to determine whether there was a relationship between resiliency and social-connectedness among homeschooled youth age 14-18. The predictor variable was social-connectedness, and the criterion variable was resiliency. Tables 3 and 4 below show the correlations table and model summary for all participants. The strength of the association between resiliency and social-connectedness was high ($r = .69$) and the correlation coefficient was statistically significant ($p < .025$).

Table 3

Correlations of All Participants with Social-Connectedness (N= 32)

Measure	1	2
1. Resiliency	-	
2. Social Connectedness	.69*	-

Note. * indicates $p = .00$

Table 4

Model Summary of All Participants with Social-Connectedness

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.69	.47	.46	.22

The regression equation for predicting resiliency is, $Y = 2.88X_1 + 3.04$. The 95% confidence interval for the slope was .18 to .40. There was significant evidence to reject the null hypothesis

and conclude that social-connectedness ($M = 4.64$, $SD = .70$) significantly predicted resiliency ($M = 4.38$, $SD = .30$), $F(1, 30) = 26.86$, $p = .00$. Tables 5 and 6 provide a summary of the regression analysis for the variable predicting resiliency. Accuracy in predicting resiliency is moderate. Approximately 47% of the variance in the resiliency was accounted for by its linear relationship with social-connectedness.

Table 5

ANOVA of All Participants with Social-Connectedness

Model	Sum of Squares	df	Mean Square	<i>F</i>	Sig.
Regression	1.28	1	1.28	26.86	.00
Residual	1.43	30	.05		
Total	2.71	31			

Table 6

Coefficients of All Participants with Social-Connectedness

	Unstandardized Coefficients		Standardized Coefficients	<i>t</i>	Sig.	95.0% CI for B		Collinearity Statistics	
	B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
(Constant)	3.04	.26		11.65	.00	2.51	3.58		
Social Connectedness	.29	.06	.69	5.18	.00	.18	.40	1.00	1.00

Note. CI = Confidence interval.

Null Hypothesis Two

H₀2: There is no significant predictive relationship between resiliency, as measured by the Child and Youth Resilience Measure, and self-esteem, as measured by Rosenberg's Self-Esteem Scale, in homeschooled students.

A bivariate linear regression analysis was conducted on the data of 32 participants to determine whether there was a relationship between resiliency and self-esteem among homeschooled youth age 14-18. The predictor variable was self-esteem, and the criterion variable was resiliency. Tables 7 and 8 below show the correlations table and model summary for all participants. The strength of the association between resiliency and self-esteem was low ($r = .26$), and the correlation coefficient was not statistically significant ($p > .025$).

Table 7

Correlations of All Participants with Self-Esteem (N=32)

Measure	1	2
1. Resiliency	-	
2. Self Esteem	.26*	-

Note. * indicates $p = .14$

Table 8

Model Summary of All Participants with Self-Esteem

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.26	.07	.04	.29

The regression equation for predicting resiliency is, $Y = 2.72 X_2 + 3.46$. The 95% confidence interval for the slope was -.10 to .64. There was not significant evidence to reject the null

hypothesis and conclude that self-esteem ($M = 3.39$, $SD = .29$) significantly predicted resiliency ($M = 4.38$, $SD = .30$), $F(1, 30) = 2.25$, $p = .14$. Tables 9 and 10 provide a summary of the regression analysis for the variable predicting resiliency. Accuracy in predicting resiliency is low. Approximately 7% of the variance in the resiliency was accounted for by its linear relationship with self-esteem.

Table 9

ANOVA of All Participants with Self-Esteem

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	.19	1	.19	2.25	.14
Residual	2.52	30	.08		
Total	2.71	31			

Table 10

Coefficients Table for All Participants with Self-Esteem

	Unstandardized		Standardized		95.0% CI for B		Collinearity		
	Coefficients		Coefficients				Statistics		
	B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound	Tolerance	VIF
(Constant)	3.49	.62		5.60	.00	2.20	4.72		
SelfEsteem	.27	.18	.26	1.50	.14	-.10	.64	1.00	1.00

Note. CI = Confidence interval

CHAPTER FIVE: CONCLUSIONS

Overview

The researcher sought to determine if a relationship existed between (1) resiliency and social-connectedness and (2) resiliency and self-esteem of homeschooled students aged 14-18. Using three surveys, the Child and Youth Resilience Measure, Lee and Robbins' (1995) Social Connectedness Scale, and Rosenberg's (1965) Self-Esteem Scale, data were obtained to perform two bivariate regression analyses that sought to determine the predictive relationship between (1) the predictor variable of social-connectedness and criterion variable of resiliency and (2) the predictor variable of self-esteem and the criterion variable of resiliency. In this chapter, the researcher discussed the results, implications, and limitations of the study and provided recommendations for future research.

Discussion

The purpose of this quantitative predictive correlation study was to determine if social-connectedness and self-esteem are good predictors of resiliency in homeschooled students. There were two research questions examined in this study and this section will discuss each separately.

RQ1: How accurately can resiliency, as measured by the Child and Youth Resilience Measure, be predicted by social-connectedness, as measured by Lee and Robbins Social Connectedness Scale, in homeschooled students?

The results of this research indicated there was a statistically significant relationship between social-connectedness and resiliency. The statistically significant relationship between social-connectedness and resiliency was not alarming as Pianta and Egeland (1990) purported that providing a "warm, sensitive and cohesive interfamilial exchanges" (p. 331) allows children

to feel more connected, confident, and valued. Further, in a study conducted by Cowen, Work and Wyamn (1997), results showed that children that are exposed to a loving and caring environment are more likely to thrive in the face of adversity.

Considering this, social-connectedness produced a statistically significant relationship with resiliency with $p < .025$. Results indicated there was a positive relationship among social-connectedness and resiliency with regression equation $y = 3.04 + 2.88 X_1$. Among the studies that addressed socialization with friends in internalizing behaviors (Bokhorst, Sumter, & Westenberg, 2010; Sund & Wickman, 2011), 15-23% of adolescents meet criteria for Major Depressive Disorder (MDD) at some point during adolescence. The selection of friends, and in turn the close relationships that form as a result, permeates the intrinsic behaviors of an adolescent and strongly influences that of oneself (Perry et al., 2012; Shaffer et al., 2012). Multiple studies composed of students participating in a traditional school setting aged 12-18 suggested that the incidence of depression increases sharply in early and middle adolescence (Costello et al., 2003; Kim-Cohen et al., 2003; Saluja et al., 2004). Another study (Hankin et al., 1998) suggested the highest incidence occurred later in adolescence with youth ages 15-18.

RQ2: How accurately can resiliency, as measured by the Child and Youth Resilience Measure, be predicted by self-esteem, as measured by Rosenberg's Self-Esteem Scale, in homeschooled students?

Although there was a positive relationship between self-esteem and resiliency as evident by the regression equation $y = 3.46 + 2.72 X_2$, no statistically significant relationship existed. Crespo (2012) cited protective factors to the like of family rituals and social-connectedness that facilitates adolescent adjustment and suggested that family involvement in all aspects of a child's well-being promotes self-confidence, high self-esteem, and a feeling of belonging. This is in line

with the results of this study as self-esteem alone does not produce a statistically significant relationship with resiliency. Other protective factors cited by Crespo (2012) included family activities, family cohesion, and quality friendships. Ungar et al. (2013) suggested that family cohesion is portrayed by observable interactions within family units. These interactions extend to emotional attachment, monitoring of family member actions, and showing active interest in one another which aligns with the emotional bonding between family members and their level of independence displayed with one another.

Implications

There has been an abundant amount of research on resiliency in middle and high school students within the United States. Many studies have focused on academic achievement (Embry, 1997; Prince-Embury, 2015; Ungar et al., 2013), self-esteem (Ali et al., 2010; Beautrais, 2000; Casey & Caudle, 2013), and social support (Bokhorst et al., 2010). While these studies concluded that there are many factors that contribute to resiliency in students, none considered the homeschool population. In this study, the researcher aimed to determine if resiliency can be predicted from social-connectedness or self-esteem for homeschooled students.

In fact, the results of this study aligned with the social cognitive theory originated by Bandura in the 1960s. This theory is based on the notion that learning occurs in a social context with a reciprocal interaction of the person, environment, and behavior (Bandura, 1977). In the present study, Null Hypothesis One was rejected as results indicated there was a statistically significant relationship between social-connectedness and resiliency. Null Hypothesis Two was not rejected in that there was no statistically significant relationship between self-esteem and resiliency. Looking at these results considering the social cognitive theory, it is not surprising that self-esteem alone did not yield significant results. Because learning is a multi-faceted

system in which one's behavior influences how he or she views, interacts and positions themselves in the world, social interaction is a necessary component of learning (Caprara et al., 2012). Bandura suggested that because intrapersonal influences, in which resiliency is a fundamental component, are part of the determining conditions in this theory, people help to influence and shape events and the course their lives take. Further, Bandura's reciprocal determinism model within social cognitive theory outlined that the environment, behaviors, and thoughts all have mutual influence over each other when carrying out an action. This idea was validated by Lugli et al. (2012) in their study in which they conducted two experiments and determined that the simulation of a social context from an outside source influenced both the motor system and how the subject performed during stressful encounters. Because the population used in this study involved homeschooled students and interaction among parents was prevalent, it is not surprising that a significant relationship exists. This supports research (Cowen et al., 1997; Pianta & Egeland, 1990) that children that are exposed to a loving and caring environment surrounded by frequent family exchanges feel more connected, confident, and valued.

Further, the results of this study also align with the ecology of human development theory in that it proposes that human development takes place through the reciprocal interaction of a person and another person, object, or symbol in its immediate environment. This two-prong ecological model further stated that human development involves a continuum of unique interactions that must occur on a consistent basis like that between a parent and child or two children (Bronfenbrenner, 1994). Ungar et al. (2013) expounded upon this theory and went on to say that the propositions in Bronfenbrenner's model are interrelated, and a change in one begets a change in each layer. It is the interaction of these factors in a child's development that can

guide a child's development. A change in current in one layer can ripple throughout the other layers leading to a change in behavior or a disruption in education. Likewise, they agreed with Bronfenbrenner that the immediate family and close community ties facilitate a healthy and positive development (Ungar et al., 2013). The person is not independent of his or her environment and external forces, but these ideals work together to help shape and develop each person. Further, Addison (1992) stated in addition to looking at the larger environment when considering a child's development, it is important to look at the interaction of all factors to get a true assessment of development.

Limitations

The limitation realized in this study occurred with external validity. Population validity was a limitation due to the smaller than expected sample size. The researcher sought a sample size of 98. However, the study included a sample size of 32. Although the minimum sample size required was 30 (Gall et al., 2007, p. 176), the study may have been more robust and generalized to the population with a larger sample size. A minimum sample size of 42 was needed to achieve a medium effect at the alpha level of .05 (Gall et al., 2007, p. 145). Convenience sampling was used to collect data from a population of middle and high school homeschool students located in central North Carolina. The researcher recruited participants via in-person contact, email, and social media from local churches, various homeschool groups, and co-ops.

The second limitation was the use of the Bonferroni correction. It was used to prevent a Type I error since two significance tests were used. As a result, a smaller p value was used to determine the significance of the results. Using a larger sample size could have eliminated the

need to run two significance tests as multiple regression could have been used instead of two bivariate regressions.

Another limitation with external validity was the Hawthorne effect. Since parents were made aware of the study and parental consent was necessary, parents may have had an influence on participant responses in hopes of the researcher achieving favorable results. Parents were provided the hypotheses during the recruitment process and expressed interest in the results of the study. It is unclear whether the fact that parents and students were aware of participating in the experiment or the fact they were made aware of the hypotheses had any effect on their performance when completing the instruments. To limit this threat, I informed parents and participants that participants were to complete the instruments on their own without help from outside influences.

Lastly, another threat to external validity is generalizability. Generalizability illustrates the extent to which research results are valid in settings other than that in which the original research was conducted. A convenience sample was used but included participants of various ages (within the scope of the study), gender, race, household makeup, number of years homeschooled and whether they previously attended a traditional school.

Recommendations for Future Research

The researcher recommends the study be replicated using a larger sample size. The sample size used for this study was less than expected, and a larger sample size would contribute to less statistical error and potentially impact the results. With a larger sample size, the researcher would be able to use multiple regression to assess the linear combination of variables. Also, this study did not consider gender in the analysis due to the small sample size, but this could be considered with a larger sample size.

Further, another recommendation for future research is using a different population. This study included participants from central North Carolina. It would be interesting to note if the results differ by area or state.

Moreover, another recommendation for future research is to use different instruments that measures the criterion variable and/or predictor variables differently. This difference in measures could have an influence on the results.

Still, another recommendation is to not consider 17 and 18 year old students. In garnering participants, there were not a lot of students in this age range. As homeschooled students reach this stage in education, they begin to take college courses as they have completed their high school coursework. This experience outside of homeschooling could have an influence on the results.

Lastly, a fourth recommendation would be to change the criteria of the sample to include younger students, namely aged 12-18. Research suggests that socialization and self-esteem is prevalent during the adolescent years. It would be interesting to note if including a wider age-range influences the results.

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APPENDIX A: DEMOGRAPHIC INFORMATION FORM

Gender: Male Female

Age: _____

Grade in School: _____

How many years have you been homeschooled? _____

Have you ever attended a school other than a homeschool? _____

If yes, what type of school (private, public, charter,...) _____

How many years did you attend a school other than a homeschool? _____

Race: Check One

Black

Hispanic/Latin

Asian

White

American Indian

Other

Family Status: Please check the line that best describes the adults living in your home right now.

Mother and Father

Mother only

Father only

Mother and Stepfather

Father and Stepmother

Other Relatives

Foster Home

Other (please specify): _____

APPENDIX B: IRB APPROVAL DOCUMENTATION**LIBERTY UNIVERSITY.**
INSTITUTIONAL REVIEW BOARD

August 16, 2017

Nicole Jones

IRB Approval 2940.081617: The Effects of Social-Connectedness and Self-Esteem on the Resiliency of Homeschool Students

Dear Nicole Jones,

We are pleased to inform you that your study has been approved by the Liberty University IRB. This approval is extended to you for one year from the date provided above with your protocol number. If data collection proceeds past one year, or if you make changes in the methodology as it pertains to human subjects, you must submit an appropriate update form to the IRB. The forms for these cases were attached to your approval email.

Thank you for your cooperation with the IRB, and we wish you well with your research project.

Sincerely,



G. Michele Baker, MA, CIP
Administrative Chair of Institutional Research
The Graduate School

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APPENDIX C: INFORMED CONSENT FORM

CONSENT FORM

The Effects of Social-Connectedness and Self-Esteem on the Resiliency of Homeschool Students
Nicole Jones
Liberty University
School of Education

You are invited to be in a research study of to determine the effects of social-connectedness and self-esteem on the resiliency of homeschool students. You were selected as a possible participant because of your homeschooling background. I ask that you read this form and ask any questions you may have before agreeing to be in the study. This study is being conducted by Nicole Jones, School of Education at Liberty University.

Background Information:

The purpose of this study is to determine if social-connectedness and self-esteem are good predictors of resiliency in homeschool students.

Procedures:

If you agree to be in this study, I would ask you to do the following thing: complete three short, multiple-choice surveys about social-connectedness, self-esteem and resiliency.

Risks and Benefits of being in the Study:

The risks in this study are no more than you would encounter in everyday life. There are no direct benefits to participation in this study, however, the societal benefit of participation in this study is a better understanding of social-connectedness and self-esteem and how they relate to resiliency in homeschool students.

Compensation

Every person that completes and returns all three surveys will have a chance to win one of two \$25 Amazon gift cards. Each person that returns the survey will be asked to place their name and phone number in an envelope. The two winners will be chosen at random from the names collected.

Confidentiality:

The records of this study will be kept private, with the data being safely and electronically stored in my (Nicole Jones) personal computer. This data will not be accessed by any third party. Because there is no anticipated use of the data in the future, the data will be deleted at the end of three years. In any sort of report I might publish, I will not include any information that will

make it possible to identify a participant. Research records will be stored securely and only the researcher will have access to the records.

Voluntary Nature of the Study:

Participation in this study is voluntary. Your decision whether or not to participate will not affect your current or future relations with Liberty University. If you decide to participate, you are free to not answer any question or withdraw at any time without affecting those relationships.

How to Withdraw from the Study:

Should you at any time wish to withdraw from the study you may contact me (Nicole Jones) and request to be withdrawn from the study. Upon withdrawal from the study any data that may have been gathered will be destroyed.

Contacts and Questions:

The researcher conducting this study is Nicole Jones. You may ask any questions you have now. If you have questions later, **you are encouraged** to contact her at [REDACTED] or [REDACTED] Dr. Joseph Fontanella, the advisor for this study, may also be contacted at [REDACTED] or jfontanella@liberty.edu. If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher, **you are encouraged** to contact the Institutional Review Board, 1971 University Blvd, Suite 1837, Lynchburg, VA 24515 or email at [REDACTED].

You will be given a copy of this information to keep for your records.

Statement of Consent:

I have read and understood the above information. I have asked questions and have received answers.

Circle: Yes No

Signature: _____

Date: _____

Signature of Investigator: _____

Date _____

APPENDIX D: PARENTAL CONSENT FORM

PARENT/GUARDIAN CONSENT FORM

The Effects of Social-Connectedness and Self-Esteem on the Resiliency of Homeschool Students

Nicole Jones
Liberty University
School of Education

Your child is invited to be in a research study to determine the effects of social-connectedness and self-esteem on the resiliency of homeschool students. He or she was selected as a possible participant because he or she is between the ages of 14 and 17 and has been homeschooled. Please read this form and ask any questions you may have before agreeing to allow him or her to be in the study.

Nicole Jones, a doctoral candidate in the School of Education at Liberty University, is conducting this study.

Background Information: The purpose of this study is to determine if social-connectedness and self-esteem are good predictors of resiliency in homeschool students.

Procedures: If you agree to allow your child to be in this study, I would ask him or her to complete a demographic survey along with three short, multiple-choice surveys about social-connectedness, self-esteem, and resiliency. These surveys should take approximately 20 minutes to complete.

Risks and Benefits of being in the Study: The risks in this study are minimal and no more than you would encounter in everyday life. There are no direct benefits to participation in this study; however, the societal benefit of participation in this study is the potential for a better understanding of social-connectedness and self-esteem and how they relate to resiliency in homeschool students.

Compensation: Your child will be compensated for participating in this study. Every person who completes and returns all three surveys will have a chance to win one of two \$25 Amazon gift cards. Each person who returns the survey will be given a raffle ticket for which the researcher will retain half. Each half of the raffle ticket will be placed in a container. The two winners will be chosen at random by an independent party.

Confidentiality: The records of this study will be kept private. Data will be stored in a locked cabinet or electronically on a password locked personal computer and may be used in future

presentations. This data will not be accessed by any third party. After three years, all electronic records will be deleted. In any sort of report I might publish, I will not include any information that will make it possible to identify a participant.

Voluntary Nature of the Study: Participation in this study is voluntary. Your decision whether or not to allow your child to participate will not affect his or her current or future relations with Liberty University. If you decide to allow your child to participate, he or she, is free to not answer any question or withdraw prior to submitting the survey without affecting those relationships.

How to Withdraw from the Study: If your child chooses to withdraw from the study, your child should tell the researcher that he or she wishes to discontinue participation prior to submitting the study materials. Your child's responses will not be recorded or included in the study.

Contacts and Questions: The researcher conducting this study is Nicole Jones. You may ask any questions you have now. If you have questions later, **you are encouraged** to contact her at [REDACTED]. You may also contact the researcher's faculty advisor, [Joseph Fontanella], at [REDACTED].

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher, **you are encouraged** to contact the Institutional Review Board, 1971 University Blvd, Green Hall 1887, Lynchburg, VA 24515 or email at [REDACTED].

Please notify the researcher if you would like a copy of this information for your records.

Statement of Consent: I have read and understood the above information. I have asked questions and have received answers. I consent to allow my child to participate in the study.

(NOTE: DO NOT AGREE TO ALLOW YOUR CHILD TO PARTICIPATE UNLESS IRB APPROVAL INFORMATION WITH CURRENT DATES HAS BEEN ADDED TO THIS DOCUMENT.)

Signature of Minor

Date

Signature of Parent

Date

Signature of Investigator

Date