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Generativity in Young Adults: Comparing and Explaining the Impact of Mentoring

Lindsay J. Hastings
University of Nebraska-Lincoln, lhastings2@unl.edu

GENERATIVITY IN YOUNG ADULTS: COMPARING AND EXPLAINING THE IMPACT OF MENTORING

By

Lindsay J. Hastings

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GENERATIVITY IN YOUNG ADULTS: COMPARING AND EXPLAINING THE IMPACT OF MENTORING

Lindsay J. Hastings, Ph.D.

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Advisor: James V. Griesen

The purpose of this embedded explanatory sequential mixed methods study was to examine the impact of mentoring relationships on generativity in college students. Generativity refers to concern for establishing and guiding the next generation The first, quantitative phase compared generatvity levels among general college students, college student leaders who do not mentor, and college student leaders who mentor through a program called Nebraska Human Resources Institute (NHRI) at the University of Nebraska – Lincoln. Data were collected via surveys (N = 273) using the Loyola Generativity Scale (LGS), the Generativity Behavior Checklist (GBC), and the Personal Strivings measure. A multivariate analysis of covariance revealed that generativity levels were influenced by group membership after controlling for age, gender, G.P.A range, and major. Further analyses indicated that college student leaders who mentor (intervention group) demonstrated higher generativity than general college students in all areas of generative concern (LGS Subscales 1 – 3), generative action, and generative commitment. In comparison to other college student leaders (who do not mentor), the intervention group demonstrated higher generativity in the areas of generative concern as it relates to passing on knowledge to the next generation as well as generative commitment. College student leaders as a group (intervention group + college student leader control group) demonstrated higher generativity than general college students in

the areas of generative concern as it relates to making a significant contribution to the betterment of one's community and doing things that will have an enduring legacy as well as generative action.

The second, qualitative phase sought to explain the quantitative results by providing a richer description of the impact of mentoring relationships on generativity. Phenomenological data analysis of nine in-depth, semi-structured interviews from the intervention group revealed several textural and structural themes to explain the quantitative results. These themes indicated that the participants learned how to be generative through their "lab" experience in NHRI, even if they entered their mentoring experience with the "seed of generativity" already planted. Through their mentoring relationships, they experienced generativity by negotiating the balance between friendship and mentorship with their mentees. As a result of their mentoring experience, the participants indicated that generativity had become integrated into who they are and what they do.

The results of both the quantitative and qualitative phase were integrated while interpreting the outcomes of the full study. Based on the integrated findings, a preliminary model of generative leadership is presented. Furthermore, the integrated findings present a cogent argument for adding mentoring as a developmental antecedent for generativity and for confirming generativity as an element of college student leaders' leadership identity.

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CHAPTER 1

Introduction

Generativity, defined as "primarily the concern in establishing and guiding the next generation" (Erikson, 1950, 1963, p. 267), is considered a trademark characteristic of psychosocial maturity in personality and social development literature (Browning, 1973; Kotre, 1984; McAdams, 1985; McAdams, de St. Aubin, & Logan, 1993; Neugarten, 1964; Ryff & Migdal, 1984). In Erikson's (1950, 1963) model of psychosocial development, generativity is apparent in the seventh (midlife) of eight successive human life cycle stages. Generativity motivates behavior that aims to promote a greater good (McAdams, 2001) and is most commonly expressed through parenting, mentoring, leadership, and service to others (Azarow, Manley, Koopman, Platt-Ross, Butler, & Spiegel, 2003). Psychologically, generativity may stem from inner needs and desires as well as from external societal expectations. Sociologically, generativity exists in social contexts. Certain social contexts may sustain individual generative action, and certain institutions may be generative in and of themselves (McAdams, 2001). The purpose of this mixed methods study was to examine if young adults who mentor someone from a younger generation during their college years are more generative than their peers.

Research Problem

Generativity is an important psychosocial construct to the discussion of social responsibility, especially in young adults. Young adults, among scholars and the general public, are not generally considered to be highly "generative." McAdams et al. (1993) articulated this notion:

> Although children and adolescents may act in altruistic ways, most cannot be considered "generative." In most cases, children's thought and behavior are not guided by an explicit concern for the next generation. Also, young people are not meaningfully involved—either socially or psychologically—in fashioning legacies of care that will survive them (p. 221).

Generativity has been found to be the most significant predictor of social responsibility in family, work, and community domains, even after controlling for age, social class, and other demographic factors (Rossi, 2001a). Social responsibility is defined in this study as the "ethical and moral obligations of the citizens of a society to each other and to the society itself" (Imada, 2004, p. 84). If young people are not considered to be highly generative, how do they increase their awareness of their responsibility to society? Mere aging? Becoming a parent? What about young adults, college students in particular, who are engaged in mentoring relationships that could be described as generative? McAdams et al. (1993) asserted that adults become more capable in generative action and thought when they have the opportunity to increase their awareness of their societal responsibility to younger generations. To further this notion, Peterson, Smirles, and Wentworth (1997) stated, "Once an individual forms a truly intimate relationship with another person, he or she is hypothesized to be psychologically advantaged in facing the broader issues of caring for society and for subsequent generations" (p. 1203). Imada (2004) noted that individuals actually express their responsibility to society through generational exchange.

Few studies have examined generativity in the college student context. In *Dissertation Abstracts*, a search utilizing keywords "generativity" and "college students" only uncovered six dissertations since 1990. In addition, previous generativity studies have not utilized rigorous qualitative methods. Much of generativity research primarily

has analyzed narrative content into quantitative counts of generative statements. One could argue that this method of data collection and analysis loses much qualitative depth. The current study addressed mentoring relationships in the college student context and their impact on generativity utilizing both quantitative and qualitative methods to enlarge theoretical understanding of this phenomenon.

Audiences That Will Benefit

Many scholarly and practitioner-based audiences are interested in understanding what leads to a more socially responsible society. Teachers and administrators at the secondary and postsecondary level certainly have an interest in utilizing education for the purpose of furthering humanity. The results presented in the current study can be used to inform their educational practices and curricular activities in and outside of the classroom. Furthermore, since the results of the current study indicated that college students who engage in mentoring relationships tend to have higher generativity and, therefore, are more likely to be more socially responsible, higher education administrators may consider budget allocations toward collegiate mentoring programs. Collegiate mentoring programs may move from fringe outreach programs to core programs. The results of the current study may also benefit the students themselves by helping them determine what sort of involvement to pursue in college as well as help them determine what kind of career objectives would be most fulfilling.

Purpose Statement

The purpose of this mixed methods study was to examine the impact of mentoring relationships on generativity in college students. An embedded explanatory sequential mixed methods design was used. This particular design utilizes multiple data sets—one data set serves as the primary data set while the other data set serves a supportive, more secondary role. The primary purpose of the current study was to quantitatively examine generativity in college students at the University of Nebraska—Lincoln (UNL) who are involved in mentoring a younger person, predicting that the presence of a mentoring relationship would positively impact generativity. A secondary purpose was to gather qualitative data via interviews to explore the impact of mentoring relationships on generativity with the college students involved. The reason for collecting this secondary, qualitative data set was to provide a richer description of the impact of mentoring relationships on generativity.

Research Questions

Phase 1: Quantitative.

1. Are college students who are involved in a mentoring relationship more generative than their peers after controlling for age, gender, G.P.A. range, and college major?

Phase 2: Qualitative.

2. What meaning do college students ascribe to their experiences with generativity in the context of mentoring?

Phase 3: Mixed methods.

3. How do the qualitative results explain the quantitative outcomes?

Definition of Terms

Counselor—A college student selected for the Nebraska Human Resources Institute (NHRI). This student is paired with a junior counselor and is responsible for taking on the role of the investor and building an investment relationship with his or her junior counselor. This student works with his or her junior counselor for approximately three years.

Embedded Explanatory Sequential Mixed Methods—A research design in which the researcher collects both quantitative and qualitative data either sequentially or concurrently, with one form of data playing a supportive role to the other (Creswell & Plano Clark, 2011).

Generativity—"primarily the concern in establishing and guiding the next generation" (Erikson, 1950, 1963, p. 267).

Generative Action—actual, tangible behaviors that promote the well-being of future generations (de St. Aubin & McAdams, 1995).

Generative Commitment—evidenced by decision-making and goal setting that seeks to take responsibility for the next generation (McAdams & de St. Aubin, 1992).

Generative Concern—"an overall orientation or attitude regarding generativity in one's own life and social world" (McAdams et al., 1998, p. 20); the extent to which an individual wishes to invest in caring for and providing some kind of generative contribution to the next generation.

Human Relations Capital—The ability to significantly influence the thoughts, feelings, and behaviors of others in a positive way (Dodge, 1986).

Investment Relationships—When one person invests time in another person on an individual basis, resulting in lasting, significant differences. These results are only possible when the investor's human relations capital is equal to or greater than the needs of the investee (Hall, ca. 1965, p. 56).

Investor—One whose role is to discover the needs and potential of the investee and create stimulus situations in order to build competency in the talents of the investee (Dodge, 1986).

Junior Counselor—A K-12 student selected for the Nebraska Human Resources Institute. This student is paired with one counselor for every three-year period. This student is considered the investee in the relationship. A junior counselor can conceivably have upwards of four counselors between kindergarten and 12th grade.

Multivariate Analysis of Covariance (MANCOVA)—A statistical procedure that tests whether certain factors have an effect on the linear combination of multiple outcome variables after removing the confounding influence of other factors (covariates).

Phenomenology—A qualitative method that seeks to comprehend the "essence" of a phenomenon by gathering comprehensive descriptions from those who had a common lived experience with said phenomenon (Moustakas, 1994, p. 13).

Ripple Effect—When an investee becomes an investor.

Social Responsibility—The "ethical and moral obligations of the citizens of a society to each other and to the society itself" (Imada, 2004, p. 84).

Stimulus Situation—A contrived situation that encourages the junior counselor to utilize his or her identified talents in a way that makes a positive difference in the lives of others.

Philosophical Foundations

The current study was approached from a pragmatist worldview. Pragmatism, which is most often associated with mixed methods research, is focused primarily on the importance of the research questions, rather than the methods. In addition, pragmatism is a worldview that is more interested in research outcomes; in particular, whether multiple data collection methods will better answer the research questions than relying on one method alone. This worldview is considered pluralistic and directs itself toward what works (Creswell & Plano Clark, 2011).

Delimitations

Delimintations are considered factors that preclude the author from asserting that the current study's findings are true for all people in all times and in all places (Bryant, 2004). One delimitation of the current study was that the unit of analysis was limited to college students who were involved in a leadership mentoring program at a Midwestern, land-grant university. Mentoring programs within as well as outside of higher education institutions vary dramatically with regard to structure, purpose, and scope. In addition, the intervention group members went through a selection process in order to participate in the leadership mentoring program at study. Considering this selectivity, the students involved likely possess intrinsic motivation for developing the health and well-being of future generations. Furthermore, the qualitative phase viewed only the perspective of the mentors, and their responses were indicative of their personal experiences in the NHRI program. Applying the findings of the current study to college students without similar motivations may not yield similar results.

Limitations

Limitations, in comparison to delimitations, are considered restrictions on the study based on the author's methodological choices (Bryant, 2004). The quantitative phase presented some limitations to consider. The current study's results are limited considering that the intervention group and the college student leader control group were intact groups. There exists a greater possibility that the two intact groups differed significantly in a variety of organismic variables (variables that cannot be assigned to a subject such as age, gender, ability, personality, etc.) as compared to randomly assigning subjects into either the control or experimental groups (Games, 1976).

The qualitative phase also presented a few limitations. Due to the inherent nature of qualitative research, the qualitative data are subject to myriad interpretations by different readers. Furthermore, due to the subjective and interpretive nature of qualitative research, the researcher's bias may have influenced the analysis and interpretation of the findings. The potential for bias was strong considering that the researcher was professionally involved with the intervention group students at the time of the study. This issue was addressed in Chapter 4, Epoche. A final qualitative limitation to consider is the population of students interviewed. Only students from the intervention group were interviewed during the qualitative phase. Therefore, their responses were not compared to responses from students in the college student leader control group and from students in the general college student control group.

CHAPTER 2

Literature Review

The purpose of this mixed methods study was to examine the impact of mentoring relationships on generativity in college students. Chapter 2 outlines the literature related to the field of generativity as well as mentoring. This literature review is organized both chronologically as well as by topic. General generativity research is reviewed first chronologically. Next, the widely recognized conceptual model of generativity is described in depth. Third, generativity research is reviewed within the context of age. In particular, research studies are outlined that analyzed generativity within and across different age cohorts. Next, generativity research is reviewed within the college student context. Last, general mentoring research is reviewed. Analyses of literature gaps and how the current study will serve to fill those gaps are presented at the end and throughout each subsection.

This literature base is intended to serve a variety of purposes in the current study. First, considering the nature of the mentoring intervention at study, the field of generativity seemed most appropriate. The college students who are in the intervention group have the intention of building a generative relationship with their mentees. Therefore, using generativity measures to compare the intervention group to the control groups may provide the best opportunity to witness differences between these groups. Second, this literature base served to help explain the results of the study. Generativity literature provided insight into the differences between each group.

Early Generativity Research

Erik Erikson, in his 1950 work, *Childhood and Society*, introduced generativity within the conception of eight "ages" of man or stages of psychosocial development. Discussed within the context of human development, Erikson (1950, 1963) conceived of the human life cycle as being comprised of eight standard sequences of stages, where one gains new ego qualities and psychosocial maturities at each progressive stage (see Figure 1). Each stage is defined by two contrasting statements (e.g. Basic Trust vs. Mistrust) and describes the interplay between internal changes (biological, cognitive, and emotional) and the influence of context (societal and cultural) on those changes. For example, the first stage and "task of the ego" (p. 249) is Basic Trust versus Mistrust. Considered to occur during infancy, the establishment of social trust is contingent upon the quality of the maternal relationship. The biological, cognitive, and emotional changes that occur when trust is formed are influenced by the mother's ability to meet the basic needs of the infant and to establish personal trustworthiness.

VIII Maturity								Ego Integrity v. Despair
VII Adulthood							Generativity v. Stagnation	
VI Young Adulthood						Intimacy v. Isolation		
V Puberty and Adolescence					Identity v. Role Confusion			
IV Latency				Industry v. Inferiority				
III Locomotor-Genital			Initiative v. Guilt					
II Muscular-Anal		Autonomy v. Shame, Doubt						
I Oral Sensory	Basic Trust v. Mistrust							
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**

Figure 1. Epigenetic chart of the life cycle (Erikson, 1950, 1963, p. 219).

Progression through each stage is considered successful when the individual can strike a favorable ratio between the contrasting statements. In the previous example, if an

infant can trust more than mistrust, then he or she is prepared for the second stage, Autonomy versus Shame and Doubt. Successful acquisition of autonomy as an ego quality prepares one to mature in both initiative and industry, where a child learns what he or she cares to do. Successful progression through these childhood stages prepares the adolescent to form a sense of identity and determine whom he or she cares to be despite changing roles. In young adulthood, one is conflicted between a sense of intimacy and a sense of isolation. If one matures psychosocially in intimacy, he or she begins to build close relationships with select others, both in professional and personal contexts. This successfully completes the sixth stage.

As seen in Figure 1 (see p. 10), generativity is situated as the seventh of eight successive human life cycle stages and is described as being centered on the establishment and guidance of future generations. Considered to occur during midlife, an individual's biological desire to be needed (perhaps by younger generations) is influenced by societal expectations for generative behavior through parenting, teaching, coaching, and mentoring. Erikson (1964) argued that parenthood is the first "prime generative encounter" (p. 130), even though generativity is present in various types of work other than parenting. Generativity can extend to anything one produces or creates, such as children, ideas, or works. This generative impulse is in conflict with an impulse to be stagnant, to indulge in the self and act as one's own child.

During the eighth stage, one experiences either a sense of ego-integrity or sense of despair. If one acquires ego-integrity, he or she experiences life cycle acceptance and considers that life cycle worthwhile and rewarding.

Erikson (1950, 1963) argued that each life cycle stage is related to every other stage and while each stage is dependent upon a proper development and sequence of previous stage(s), each stage can and does exist before its normative time arrives.

Plato's *Symposium* is considered perhaps an unrecognized precursor to Erikson's seminal generativity work (Wakefield, 1998). In *Symposium*, Plato (1942) recounted a dialogue about love among a group of philosophers. During this dialogue, Socrates quoted Diotoma regarding love, describing love as the "love of the everlasting possession of good" (p. 197) and argued that every person has a love of generation and of "birth in beauty" (p. 198). In essence, when a person possesses a virtuous soul and matures in this love, he or she will be content in love and will embrace thoughts that seek to improve the young. This notion is perhaps reflected in Erikson's (1950, 1963) Generativity versus Stagnation stage when he discussed mature man's need to be needed and his need to encourage that which has been produced.

Between Erikson's work and the early 1980s, little scholarly analysis was conducted on generativity. Walter Gruen and Don Browning were perhaps counter examples. Gruen, in collaboration with Bernice Neugarten, conducted an empirical study of Erikson's theory of ego development (Neugarten, 1964). Arguing that Erikson did not provide sufficient detail of adult behavior in the last three stages (intimacy, generativity, and integrity), Gruen developed a series of ten-point rating scales to assess Erikson's eight stages of ego development. Gruen then tested the scales for each stage on 108 study participants within three age cohorts (40-45, 50-55, 60-65). For the generativity scale, Gruen described highly generative individuals as those who have plans for the future that require constant use of skills and abilities, invest energy into futuristic ideas,

take an active interest in their children's development and education (if applicable), indicate a strong sense of continuity with the next generation, and direct efforts toward activities and products that will leave a legacy.

Browning (1973) wrote a book entitled *Generative Man: Psychoanalytic Perspectives* in which he posited that Erikson's generativity concept is a "trustworthy summary of the emerging psychoanalytic vision of the good man" (p. 9). He extended Erikson's conception by describing who a "generative man" is—an image of what mankind has always desired and what mankind must become. In sum, Browning argued that the generative man is committed to maintaining and strengthening the ecology and integrity of mankind, is fulfilled by children's recognition, hopes that each child is wanted and cared for, and knows that the growth and expansion of mankind must be carefully considered and limited when necessary.

John Kotre (1984) was the first theorist to substantially extend Erikson's work. Kotre offered a theory of generativity that could link individual life experiences to a sound conceptual framework. Kotre first pointed out that generative impulses can be used for both good and evil. With this enlightened viewpoint, Kotre extended Erikson's definition of generativity to "a desire to invest one's substance in forms of life and work that will outlive the self" (p. 10). Kotre (1984) also offered four major types of generativity: (a) biological, (b) parental, (c) technical, and (d) cultural. Biological generativity is described as the begetting, bearing, and nursing of children, with the infant being the generative object. Parental generativity, on the other hand, is considered both meeting the basic needs of children as well as disciplining and initiating them in family traditions and culture, with the child serving as the generative object. Technical

generativity is described as the teaching of skills and the cultural body to successors, with both the apprentice (or successor) as well as the skills themselves serving as generative objects. Cultural generativity is considered the evident passing of a symbol system (the "mind" of a culture) to successors. The objects of cultural generativity are both the disciple (or mentee) as well as the culture itself. Kotre (1984) was the first to contend that any type of generativity can be expressed in two different forms (or "modes"): agentic or communal. An agentic form of generativity is when one's life-interest is more important than the interest of the generative object. For example, within parental generativity, the parent molds a child in his or her own image. A communal form of generativity is when the interest of the generative object is more important than self-interest. Using the same example, the parent allows and encourages a child to develop in his or her own way.

Dan McAdams was the next major scholar to empirically study generativity. McAdams (1985) first discussed generativity within his life-story theory of adult identity, which posits that adults give purpose to their lives by creating and internalizing self-defining life stories. McAdams (1985) extended Kotre's idea of agentic and communal generativity by arguing that generativity is fully expressed through *both* agentic and communal modes. Generativity can be expressed both as a desire to produce, generate, or create something in one's own image (agentic) and as a desire to care for, nurture, and give independence to that which has been produced, generated, or created (communal).

Conceptual Model of Generativity

McAdams and de St. Aubin (1992) produced a seminal generativity piece that provided a conceptual and methodological framework for the study of generativity by

offering both a theory of generativity and three assessment strategies to measure individual differences in generativity: (a) The Loyola Generativity Scale (LGS)—a self-report scale of generative concern, (b) The Generativity Behavior Checklist (GBC)—a behavioral checklist measuring generative actions, and (c) narrative accounts of important autobiographical episodes. McAdams et al. (1993) added Emmon's (1986) measure of personal strivings to assess generative commitment. These assessment strategies are discussed in detail in Chapter 3.

McAdams and de St. Aubin's (1992) theory of generativity is offered as a configuration of seven psychosocial features directed, ultimately, towards the goal of providing for the next generation (see Figure 2 on p. 16). These scholars suggested that generativity not be considered a concept located "within" the individual (like a personality trait), but rather a relational construct, existing between individuals and their respective environments. The following subsections and figure (see p. 16) outline McAdams and de St. Aubin's conceptual model in detail.

Motivation sources. Cultural demand and inner desire serve as motivational sources for generativity (see Figure 2 on p. 16). *Inner desire* is considered an internal motivation source and describes McAdams' conception of combined agentic and communal generativity (McAdams & de St. Aubin, 1992). Multiple empirical studies have revealed a positive correlation between individual differences in agentic and communal motives and expressions of generativity (Ackerman, Zuroff, & Moskowitz, 2000; de St. Aubin & McAdams, 1995; Grossbaum & Bates, 2002; McAdams, Ruetzel, & Foley, 1986; Peterson & Stewart, 1993; Peterson & Stewart, 1996).

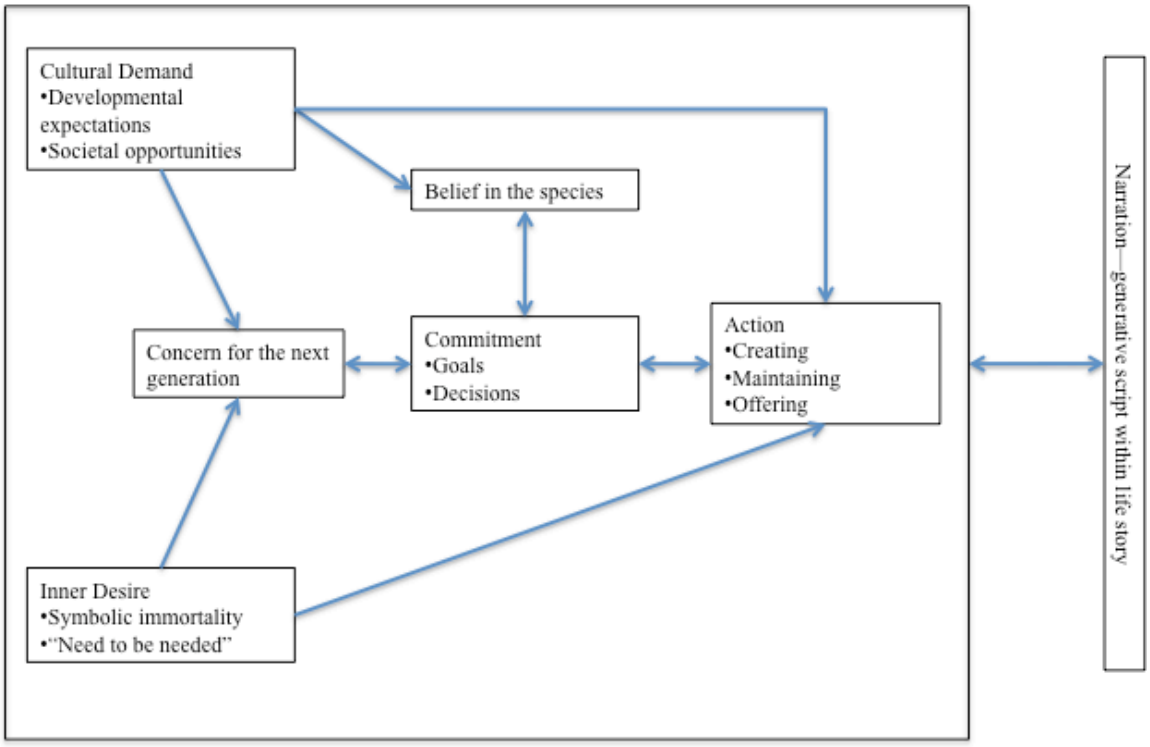

Figure 2. Theory of generativity (McAdams & de St. Aubin, 1992).

McAdams, Ruetzel, and Foley (1986) administered the Thematic Apperception Test (to assess needs for achievement, power, and intimacy) and life-story interviews (to assess personal future plans) to 50 midlife adults (35 – 49 years of age). Data results indicated that those who scored highly on both power (agentic) and intimacy (communal) motivations also articulated generative future plans. Peterson and Stewart (1993) examined the relationship between agentic and communal motives and generativity to understand the impact of becoming a parent on expressions of generativity. Utilizing former University of Michigan students, data results for women revealed a positive association between the agentic motive of power related to parenting, the agentic motive of achievement related to generative expression outside of the home, and the communal motive of affiliation-intimacy related to generativity expression both in and outside of the

home. For men, data results indicated a positive association between the agentic motive of power related to generative expression outside of the home and the agentic motive of achievement related to generative expression within the home. Peterson and Stewart (1996) developed a semi-projective generativity measure of inner desire and tested the measure on a longitudinal sample of educated women. Adolescent and midlife scores on combined agentic and communal motivations were significantly related to midlife generativity motivation. De St. Aubin and McAdams (1995) also discovered a relationship between generativity and the combined motivations of agency and communion. Results of their study revealed a significant relationship between generative concern and two agentic traits, achievement and dominance, as well as two communal traits, affiliation and nurturance. Ackerman, Zuroff, and Moskowitz (2000) examined generativity and its relationship to agency and communion in a midlife and a young adult sample. Results indicated that, indeed, generativity was related to both agentic and communal traits. Results further indicated that high levels of both agency and communion are not necessary for generativity. Rather, an additive model exists. For those who have a certain level of agency, an increase in communal traits predicts even greater generativity. Conversely, for those who have a certain level of communion, an increase in agency traits predicts even greater generativity. Grossbaum and Bates (2002) examined the relationship between generative concern, generative behavior, agency and communion motivations, narrative themes, and psychological well-being in 49 midlife adults. The results of their study also confirmed a relationship between agency and communion motivations and high levels of generativity.

Cultural demand describes societal expectations placed on an individual based on his or her age and is considered an external motivation source for generativity (McAdams & de St. Aubin, 1992). Generativity exists not only as the result of a developmental crisis, but also as a result of sociological forces (Imada, 2004). McAdams, Hart, and Maruna (1998) contended that generativity is a dominant psychosocial issue in adulthood, because societal expectations for generative behavior are highest during this period. Individuals in their adulthood (30s and 40s) are expected to provide for the next generation through their roles as parents, teachers, mentors, and coaches. Huta and Zuroff (2007) examined whether or not inner desire (symbolic immortality and a need to be needed) and societal expectation mediated the relationship between generativity and well-being (both psychological well-being and social well-being) among 121 undergraduates at McGill University. Correlation analyses revealed that generativity scores on the Generativity Behavior Checklist (GBC) demonstrated a significant, positive relationship with symbolic immortality, feeling needed, and meeting expectations. Further analyses utilizing structural equation modeling revealed, however, that only the satisfaction of symbolic immortality was sufficient in order to mediate the relationship between generativity and well-being.

Generative concern. Inner desire and cultural demand as motivational sources combine to promote concern for the next generation (see Figure 2 on p. 16). This generative concern refers to "an overall orientation or attitude regarding generativity in one's own life and social world" (McAdams et al., 1998, p. 20) and can be considered the extent to which an individual wishes to invest in caring for and providing some kind of generative contribution to the next generation. McAdams and de St. Aubin (1992)

created The Loyola Generativity Scale (LGS) to measure individual differences in generative concern. Empirical research utilizing the LGS revealed that adults with strong generative concern reported more meaningful and satisfactory social relationships, stronger feelings of community attachment, higher involvement in the political process, and a self-view as an effective political agent. In addition, generative concern demonstrated a strong positive relationship with measures of psychological well-being and personality traits such as extraversion, agreeableness, openness to experience, and emotional stability (Ackerman et al., 2000; de St. Aubin, & McAdams, 1995; McAdams et al., 1998).

Pratt, Norris, Arnold, and Filyer (1999) discovered that strong generative concern was predictive of perceived learning of important lessons, of stronger investment in value socializing young people, and of more engaging narratives for adolescents as judged by uninstructed raters. Generative concern was also positively related to higher levels of moral reasoning. In Grossbaum and Bates' (2002) study, generative concern was predictive of all six dimensions of psychological well-being (self-acceptance, positive relations with others, autonomy, environmental mastery, purpose in life, and personal growth) as well as life satisfaction.

Generative commitment. Referring back to the model (see Figure 2 on p. 16), generative concern stimulates generative commitment. Generative commitment is evidenced by decision-making and goal setting that seeks to take responsibility for the next generation (McAdams & de St. Aubin, 1992). McAdams et al. (1993) adapted Emmon's (1986) personal strivings approach and subsequent data collection procedure to assess generative commitment. To assess generative commitment, individuals were

asked to list ten strivings that they are currently "working on." (A striving is considered any daily objective or goal that one tries to accomplish.) Each striving was analyzed for demonstration of generative commitment.

Generative commitment can be augmented (or undermined) by belief in the goodness of the human species (see Figure 2 on p. 16). This "belief in the species" was first discussed by Erikson (1950, 1963) and includes faith in mankind as well as hope and trust in mankind's future. Van de Water and McAdams (1989) tested the relationship between belief in the species and generative commitment by administering three self-report scales of faith in people, trust, and hope for the future to 70 adults. Results of the study indicated that hope scores were positively and significantly correlated with generative commitment. Faith in people and trust did not demonstrate the same relationship with generative commitment.

Generative action. At the point of generative commitment in the conceptual model, individuals commit to turning their generative concern into action by creating, maintaining, and offering generative products (see Figure 2 on p. 16). Generative action includes actual, tangible behaviors that promote the well-being of future generations (de St. Aubin & McAdams, 1995). In order to assess individual differences in generative behavior, McAdams and de St. Aubin (1992) created the Generativity Behavior Checklist (GBC). This measure assesses what generative behaviors an individual actually performs in the categories of creating, maintaining, and offering. Generative action can be considered *creating* something or someone—a legacy in one's own image (McAdams et al., 1998). This could include producing a plan for an organization or group or sewing a quilt that is to be given to a younger family member. Generative action can also be

described as *maintaining* that which is good. This includes maintaining an ongoing project, product, or tradition (McAdams et al., 1998). Last, generative action can be considered *offering* one's self or one's products to others. This could include serving as a role model or drawing upon one's experiences to help another person adjust to a particular situation (McAdams et al., 1998). Keyes and Ryff (1998) examined quality of life consequences from generative behavior among a nation-wide sample of over 3,000 individuals (ages 25 – 74). Results indicated a positive association between generative behavior and well-being after controlling for age and education. Ochse and Plug's (1986) generativity subscale also demonstrated a significant, positive correlation with well-being for both the White and Black participants. Further, Huta and Zuroff (2007) discovered that generativity scores on the GBC correlated significantly and positively with life satisfaction, positive affect, and self-esteem among their sample of 121 McGill University undergraduates. De St. Aubin and McAdams (1995) discovered a significant, positive relationship between generative behavior and personality traits such as extraversion and openness. These authors also discovered, however, that generative behavior did not demonstrate a significant relationship to life satisfaction and overall happiness. These results contradict McAdams et al.'s (1993) study results that revealed a positive association between generative behavior and life satisfaction. Results from Grossbaum and Bates' (2002) study, however, confirmed McAdams and de St. Aubin's (1995) finding indicating that generative behavior did not demonstrate a significant relationship with psychological well-being. Further, generative behavior did not predict life satisfaction.

According to Figure 2 (see p. 16), generative commitment leads to generative action. Further, Figure 2 posits that generative commitment can be directly motivated by cultural demand or inner desire. Despite the intuitive nature of this hypothesis, de St. Aubin and McAdams (1995) discovered some disconfirming evidence. While their study revealed a significant relationship between generative concern and a combination of agentic and communal traits, the study did not reveal a significant relationship between generative behavior and agentic and communal traits. Therefore, inner desire (which is comprised by both agentic and communal models) may not serve as a direct motivation for generative action.

Narration. Individuals create meaning of the aforementioned six psychosocial constructs through personal narrations of generativity, or "generativity script", which is then fed back to all constructs of the model (refer to Figure 2 on p. 16). This generativity script reflects an individual's awareness of how generative efforts fit into both the life story as well as the individual's social world. In addition, this narration serves as an envisioned legacy (McAdams & de St. Aubin, 1992). Stemming from his life-story theory of identity, McAdams (1985) argued that constructing narratives allows one to provide him or herself with a sense of unity and purpose.

McAdams (1985) developed a life-story method for producing generativity scripts where participants are asked to recount major "chapters" in their life stories, including a high point, a low point, a turning point experience, and an earliest memory. When tested, adults demonstrated considerable differences with regard to generative narration (McAdams et al., 1998). Two studies analyzed narratives of 40 highly generative adults against narratives of 30 less generative adults (McAdams, Hoffman, Mansfield, & Day,

1996; McAdams, Diamond, de St. Aubin, & Mansfield, 1997). The authors discovered that highly generative adults (adults who demonstrated high scores for generative concern on the LGS and high scores for generative action on the GBC) included more communion themes (desire to care for and nurture that which has been produced) in their narratives than less generative adults. The same was not true, however, for themes of agency (desire to create something in one's own image). McAdams, Diamond, de St. Aubin, and Mansfield (1997) further analyzed the aforementioned narratives and discovered other differences in the narrative content of highly generative adults when compared to less generative adults. When recounting earliest memories, highly generative adults recalled being singled out during childhood with a special advantage and recalled being more sensitive to the suffering of others during childhood. Throughout their lives, highly generative adults exemplified a moral steadfastness. In essence, their basic values and beliefs did not seem to change over time. Narratives of highly generative adults included more redemption sequences (where negative events were redeemed by positive outcomes) and less series of contamination sequences (where positive events were spoiled for some reason). Last, highly generative adults articulated more prosocial goals than personal goals. McAdams et al. (1997) summarized the narrative distinctions of highly generative adults as the "commitment story", which, in essence, provides one with a language that articulates a caring, compassionate, and responsible approach to social life.

In sum, the conceptual model of generativity (see Figure 2 on p. 16) begins with two motivational sources: (a) an inner desire for agentic immortality and communal care for others and (b) a cultural demand for generativity. From these motivational sources

stems the generative performance sequence: concern, commitment, and action. Thoughts and plans including concern for the next generation translate into generative commitments, which is reinforced by a belief in the species. Generative commitments lead to actual behavior in generative action, including creating, maintaining, and offering. Meaning is made of these aforementioned constructs through personal narrations of the life story.

From this model, a few questions may be raised that previous research has not yet answered. For example, what if young adults are placed in an environment where cultural demand exists for them to be generative? What if young adults are given a societal opportunity to be generative? The results of the current study can perhaps shed light on these inquiries.

The Relationship Between Generativity and Age

Erikson (1950, 1963) argued that adults in their midlife, compared to younger and older adults, are most likely to engage in generativity as evidenced by their career and family roles. From parenting children at home to guiding younger subordinates at work, midlife adults are often providing care and tutelage to younger generations during this life stage. Younger adults, comparatively, are more likely establishing their identity and building long-term intimacy with others (see Figure 1 on p. 9). Older adults are more likely to be concerned with ego integrity, or assessing life and aiming to reach acceptance of their unique life cycle (see Figure 1 on p. 9). In sum, generativity is assumed to improve with age, peak in midlife, and decline in later years.

While midlife-peaking generativity is a generally accepted idea, generativity has been studied in young adult populations with mixed results. For example, in a case study

of Vera Brittain, an early twentieth century feminist and peace activist, Peterson and Stewart (1990) discovered a strong increase in generative concern in Brittain from early adulthood to later middle age. In another case study of an adolescent girl who emigrated from her home country, however, Espin, Stewart, and Gomez (1990) coded strong generativity themes in her written correspondence during adolescence (between ages 13 and 22). The following paragraphs describe research studies that examined the relationship between generativity and age.

Vaillant and Milofsky (1980) studied Erikson's life cycle model by blindly rating and comparing the developmental stage at age 47 between two groups of males (392 undereducated males from high-crime, core-city neighborhoods versus 94 male college graduates) at two time points. First, these authors discovered that age and adult life stage were independent. In other words, the age at which an individual masters one of Erikson's psychosocial stages varies dramatically. For example, only 30% - 40% of the men studied were rated as being in the generativity stage at age 47. Second, Vaillant and Milofsky discovered that mastery of a psychosocial stage is not dependent upon social class or education during childhood. Social class and education demonstrated only a mild relationship with life cycle stage. Last, the results of this study revealed that men's life cycle stages must be mastered sequentially. Of the 70 men who were rated as unable to reach intimacy, only two had mastered tasks associated with generativity. Conversely, 116 of the 121 men who were rated in the generativity stage also reported a stable marriage, indicative of intimacy stage mastery.

Ryff and Heincke's (1983) study assessed self-perceived personality changes across three major phases of adult life (young adulthood, middle age, and old age). The

results of their study indicated that middle-aged individuals rated themselves presently as being more generative than they recalled being as a young adult or anticipated being in old age. Young adults anticipated that they would be more generative in midlife than they were presently. Old-aged individuals recalled being more generative in midlife than they were presently. Post hoc analyses revealed that reported midlife generativity scores were significantly higher than young adult or old age scores. Overall generativity scores, however, revealed that the scores of the young adults were significantly higher than those of middle- or old-aged participants. In other words, even though all age groups saw themselves as being most generative in midlife, young adults rated themselves highest on generativity across all age periods.

Ryff and Migdal (1984) examined the relevance of Erikson's intimacy and generativity psychosocial stages in women. A sample of young adult women (n = 50, ages between 18 and 30) and a sample of middle-aged women (n = 50, ages between 40 and 45) were administered two different personality measures designed to assess intimacy and generativity. Results of the study indicated that intimacy, indeed, was a more salient issue to the young adults than the middle-aged adults, consistent with Erikson's theory. Results also indicated, however, that young adult women viewed generativity as being more important as a young adult than as a middle-aged person, which is somewhat contrary to Erikson's theory. Perhaps this finding is unique to women, because McAdams and de St. Aubin (1992) discovered that, among the college student sample, college-age women scored significantly higher on generativity than college-age men.

Whitborne, Elliot, Zuschlag, and Waterman (1992) examined adult personality longitudinally using the Inventory of Psychosocial Development (IPD), an inventory that measures resolution of Erikson's psychosocial stages, on three cohorts of University of Rochester alumni. Cohort 1 was tested in 1966 (at age 20), 1977 (at age 31), and 1988 (at age 42). Cohort 2 was tested in 1977 (at age 20) and 1988 (at age 31). Cohort 3 was tested in 1988 (at age 20). Results in 1977 revealed a statistically significant difference in generativity scores between Cohort 1 (age 31) and Cohort 2 (age 20), indicating that the 31-year-old cohort had significantly higher generativity scores than the 20-year-old cohort. Results in 1988 indicated a similar trend. While a statistically significant difference in generativity scores did not exist between Cohort 1 (age 42) and Cohort 2 (age 31), a statistically significant difference was discovered between Cohort 3 (age 20) and the combined scores of Cohorts 1 and 2. Interestingly, however, results did not reveal a statistically significant change in generativity scores over time in each cohort. So, for example, while Cohort 2's generativity scores increased between ages 20 and 31, the differences in scores were not statistically significant. Further, data results did not indicate a significant difference in generativity scores between cohorts at the same age. For example, at age 20, no significant difference existed between Cohort 2 and Cohort 3. The same result was discovered at age 31 between Cohort 1 and Cohort 2. Therefore, the environments in 1977 and 1988 did not appear to influence the generativity levels within the three cohorts.

McAdams et al. (1993) discovered that the midlife and older subsamples had higher generative commitment and narration scores than the younger subsample. In this particular study, three age cohorts (young adults ages 22 – 27, midlife adults ages 37 –

42, and older adults ages 67 – 72) were administered three generativity measures: (a) the Loyola Generativity Scale (LGS) (generative concern measure), (b) open-ended reports of daily goals and strivings (generative commitment measure), and (c) the Generativity Behavior Checklist (GBC) (generative action measure). Overall, the midlife cohort demonstrated the highest generativity scores, with the strongest data trends in generative commitments and generative themes. The midlife cohort reported significantly higher generative commitment and generative theme scores than the young adult cohort (both at the $p < .001$ level). In contrast, no significant difference existed between the midlife and young adult cohort with regard to generative concern.

In a later study investigating the influence of age and education on generativity, Keyes and Ryff (1998) discovered that age indeed impacts generative behavior, commitment, and self-construal. Utilizing a national probability sample of 3,032 adults, the results of the study revealed that midlife adults (ages 40 – 59) and older adults (ages 60 – 74) reported more generative behavior and commitment through emotional support, unpaid assistance to others, and civic responsibility than young adults (ages 25 – 39). Midlife adults also scored the highest on the LGS. Young adults, however, scored higher than the midlife and older adults on generative concern for others' welfare and well-being as well as obligations to help children and other people directly.

Pratt et al. (1999) discovered contrasting findings in their study of 129 adults from three age cohorts (18-26, 28-50, 60-75). Analyses of both LGS scores and generativity themes within narration did not reveal highest scores in the midlife cohort. No significant difference existed between the three age cohorts on the LGS, and generativity themes continued to increase as age increased.

Ackerman et al. (2000) examined generativity and its relationship to agency, communion, and well-being in both a sample of midlife adults (n = 98) and young adults (n = 58). Results of the study indicated that no significant difference existed between the young adult sample and the midlife adult sample with regard to generativity scores on the LGS. Further, the correlation between age and generative concern was not significant in the combined sample.

Scholars like Stewart, Peterson, and Vandewater studied generativity motivation in young adults. These academics asserted that a difference exists between generative motivation (the desire to be generative) and generative realization (generative accomplishments) (Peterson, 1998; Peterson & Stewart, 1996; Stewart & Vendewater, 1998). Stewart and Vandewater (1998) proposed that the *desire* to be generative appears in early adulthood; however generativity accomplishments cannot be realized until late adulthood. Between early adulthood and late adulthood, one develops his or her capacity for generativity. Stewart and Vandewater's study involved longitudinal exploration of changes in generativity motivation between two groups of college-educated women distinguished by age ranges (early and middle adulthood). Utilizing content analysis of participants' storied responses to fictional and ambiguous picture cues, the results of the study indicated that while generativity motivation decreased in both groups over time, generative accomplishments (behaviors and commitments) increased in midlife. Stewart and Vandewater concluded that while young adults likely have strong generative motivations, these behavior motivations will not peak and become actualized until the midlife stage. Study results also indicated, however, that desire for generativity in early adulthood demonstrates a significant relationship with well-being and generativity

accomplishment in midlife. The same relationship was not significant between midlife generativity desire and midlife well-being and generative accomplishments. Peterson and Stewart (1993) in their study of 158 former University of Michigan students in their young adulthood also concluded that individuals begin to wrestle with generativity issues during young adulthood.

From these results, one might conclude that, in order to successfully peak in generative accomplishments in midlife, one must demonstrate a strong desire for generativity in early adulthood. So how does one engender a desire to be generative in early adulthood? What are the developmental antecedents to generativity desire?

Developmental Antecedents of Early Generativity and Adulthood Generativity

McAdams (2001) remarked that existing research lacks a thorough knowledge of the developmental antecedents of generativity. While McAdams noted that variables such as close and long-term relationships, gender, race, ethnicity, historical context, and education influence the development and expression of generativity for individuals, the field of generativity could be expanded by understanding why some people become more generative than others and what sorts of childhood and adolescent experiences can be linked to strong generativity.

Peterson and Stewart (1996) discovered that the presence of a mentor served as a statistically significant antecedent of generativity motivation. Participants in these authors' study indicated that generative ideals were passed through positive role models. The same participants also reported, however, that generative ideals were not necessarily passed through parents, spouses, or lovers. In contrast to this finding, Peterson et al.

(1997) reported that life satisfaction in offspring is significantly related to highly generative parents.

Rossi (2001b) furthered her analysis of social responsibility by examining developmental roots of adult social responsibility. By studying characteristics of families of origin and their effects on respondent personality and values, Rossi tested her hypothesis that generativity is rooted in early life experiences. In her previous study, Rossi (2001a) reported that parental generosity and sociability shown toward individuals outside of the family were significant predictors of respondent generativity. In her second study (Rossi, 2001b), the data revealed the following factors as significant predictors of respondent generativity: (a) parent's generativity (the more generative the parents are, the more likely the respondent to be highly generative), (b) family size (the larger the family, the more conducive of an environment for respondent generativity), (c) parental affection (the more parental affection shown to the respondent, the more generative he or she is likely to be), (d) parental emphasis on chores and time-use rules (the more the parents emphasize chores and limit time spent on watching TV for example, the more generative the respondent is likely to be), (e) educational attainment (the more highly educated the respondent is, the more generative he or she will likely be), (f) age (the closer a person is to midlife, the more likely he or she is to be generative), (g) communion, agency, and conscientiousness personality traits (the more an individual draws from agentic, communal, and conscientious personal traits, the more likely he or she is to be generative). Agency and communal personality traits were the strongest predictors of respondent generativity.

Lawford, Pratt, Hunsberger, and Pancer (2005) examined developmental antecedents of generativity in 198 adolescents/young adults in Canada. Studied longitudinally over a six-year period, participants were asked to complete questionnaires measuring generative concern (LGS), parenting style (of their parents), community involvement, and personal adjustment at age 17, then again at age 19, then again at 23. The results of their study proved similar to Rossi (2001b). Respondents who described their parents as having an "authoritative" style (warmth coupled with strictiness) at age 17 scored highly on generative concern at age 23. Strong community involvement scores at ages 17, 19, and 23 also correlated positively and significantly with generative concern at age 23.

Peterson (2006) also examined the relationship between parental generativity and offspring outcomes among 57 University of New Hampshire students and their parents. Correlation analyses revealed a significant, positive association between parental generativity scores on the LGS and offspring generativity scores on the LGS. A regression analysis further revealed that parental generativity served to be a significant predictor of offspring generativity.

Frensch, Pratt, and Norris (2007) conducted a longitudinal study among 32 adolescents/young adults and their parents that examined generativity foundations. Adolescent/young adult participants were asked to provide narrations at two different points in time (at age 16 and again at age 20) that were coded for generativity themes. Those themes were then compared with family parenting measures, such as authoritative parenting style, autonomy-encouraging practices, and emphasis on caring in family teaching, as well as individual measures, such as prosocial reasoning, value/goal patterns,

and community involvement. With regard to family parenting measures, results indicated that (a) participants' ratings of authoritative parenting style at age 16, (b) parents' ratings of autonomy-encouraging practices, (c) participants' ratings of family emphasis on caring at age 16, and (d) parents' ratings of family emphasis on caring were positively related to generativity themes from participants' narratives at age 20. These findings were consistent with Rossi (2001b), Lawford et al. (2005), and Peterson's (2006) findings. With regard to individual measures, results indicated that participants' community involvement was positively correlated with generativity themes from participants' narratives at age 20, consistent with Lawford et al.'s (2005) findings. Further, correlation analyses revealed a positive association between generativity themes present in participants' narratives at age 20 and individual measures of prosocial reasoning at age 20 and value patterns of "fairness" and "kindness" at age 16 and 20.

While Rossi (2001b), Lawford et al. (2005), Peterson (2006), and Frensch et al. (2007) took an important first step in answering McAdams' call to discover developmental antecedents of early generativity and generativity in adulthood, more research in this area could provide a more comprehensive picture. In fact, the following questions posed by MacDermid, Franz, and De Reus (1998) still remain, in part, to be answered: (a) by what means does generativity come to be expressed and (b) under what circumstances are opportunities for expression likely to be realized? The current study assesses whether or not the presence of a mentoring relationship during early adulthood (ages 19 – 22) suggests to be a means by which generativity is expressed as well as a circumstance by which generative expression is likely to be realized.

McAdams (2001) pointed out that while some data exists to support the idea of generativity increases in midlife, several studies have revealed many young adults scoring high on various generativity measures and many midlife and older adults scoring low. McAdams further noted, "…it may be claiming too much to claim that generativity is a 'midlife stage' in adult development.…the empirical picture is too ambiguous to delineate a clearly demarcated stage of generativity in the middle of the adult life course" (p. 414). McAdams, instead, recommended a life course approach rather than a stage-based model. This recommendation follows Cohler, Hostetler, and Boxer's (1998) argument for a life course perspective that encourages analyses of on-time versus off-time developmental tasks. The life course approach accounts for wide variability in individual psychosocial development and allows social timing, social roles and relationships, social structure, and the role of human agency to be considered.

McAdams et al. (1998) suggested that generativity be contingent upon developmental expectations and assumptions about "timing" in an individual's social world rather than a discrete developmental stage. The authors articulated this notion: "…in a given life, generativity may ebb and flow as a function of life circumstances, and different domains of generativity (e.g., parenting and volunteer work) may follow their own more or less autonomous developmental paths, strongly influenced by cultural roles" (p. 17). They noted that few empirical studies have addressed generativity timing.

McAdams (2001) highlighted the importance of human agency with regard to social timing. Citing Cohler et al.'s (1998) study of personological portraits of generativity among three gay men, McAdams wrote, "…adults often defy social clocks

and fly in the face of conventional social norms to create personal meaning and exert positive impacts on the next generation" (p. 420).

The sequence and pattern of social roles is often discussed in conjunction with social timing. MacDermid et al. (1998) examined generativity within the context of social roles, arguing that generative expression varies across roles. While parenting is the most obvious social role for generative expression, these authors contended that an individual's ability to select and maintain role commitments within or outside of the family context can be a vehicle for generative expression. Citing authors such as LaRossa and Reitzes as well as Stryker and Stratham, the authors explained that roles are molded by internal and external expectations for certain behaviors, feelings, and emotions. They proposed that aspects of the role setting influence generative expressions and argued that examining social roles alongside generativity will produce important insights regarding generativity that global or aggregate generativity measures will inevitably miss.

In order to test their assertions, MacDermid et al. (1998) administered quantitative surveys of generativity, personal well-being, and demographic characteristics to a sample of 181 women who were workers, mothers, and wives. The authors discovered small, albeit statistically significant differences in generativity across the roles of parent, spouse, and worker. Generativity scores were highest within the parent role, followed by the worker role, then the spousal role. To further verify the results (considering that the score differences did not have much practical significance), the authors conducted chi-square analyses on the data for women who scored above the median on the generativity measure. Results of the analyses revealed that those who scored above the median on

generativity in one role were not more likely than other women to score above the median on generativity within other roles. From these results, the authors concluded that significant variability indeed existed across various roles. The authors noted that their analyses were intended to "stimulate the development of additional research questions and theory about generativity in the context of social roles" (p. 216). The current study aimed to examine generativity in the context of an individual role—mentor. In particular, the current study aimed to answer whether or not the presence of a mentoring opportunity during young adulthood provided a generativity enhancement that would perhaps be considered socially "off time" under normal circumstances.

The practical significance of generativity "enhancement" during young adulthood manifests itself in Rossi's research linking generativity to social responsibility. Rossi (2001a) analyzed domains and dimensions of social responsibility among 3,032 respondents (aged 25 to 74) using the Midlife Development in the United States (MIDUS) survey, a survey that examines patterns, predictors, and consequences of midlife development. Telephone interviews and self-administered questionnaires included multiple measures of social responsibility and a modified version of the LGS. Results indicated that generativity was the most significant predictor of all four dependent variables of social responsibility (time, money, family, and community). In other words, the higher one scored on the LGS, the more likely he or she was to contribute time and money (dimensions of social responsibility) to both the family and the community (domains of social responsibility). From these findings, one might conclude that the more generative a person is, the more likely he or she will be socially responsible. When broken down by age cohort, Rossi's (2001a) data results on the LGS

confirmed previous findings. Among both men and women, generativity increased from young adulthood to midlife, peaked during midlife, and decreased during old age.

McAdams (2001) also cited a number of studies that linked generativity to social involvements. Hart, McAdams, Hirsch, and Bauer (2001) discovered in their study of midlife African-American and white adults that high generativity scores on the LGS were associated with social support (a more extensive network of friends, social support in the community, and satisfaction with social relationships), seeing themselves as role models in the parenting role, likelihood for participation in religious activities, and likelihood for political involvement (voting, working for a political party or campaign, and correspondence with a political official). Cole and Stewart (1996) discovered from their study of African American and white midlife women that generative concern was a significant predictor of midlife political participation. In essence, those who demonstrated strong generative concern were also more likely to demonstrate feelings of attachment to their communities and feelings of confidence with regard to being effective political agents. Peterson et al. (1997) and Peterson (2006) also discovered a strong, positive relationship between generativity and interest in the political process.

Summary of Generativity Research

Since Erikson's (1950, 1963) introduction of generativity, many scholars have furthered an understanding of generativity as a psychosocial construct. This section outlines six major propositions salient to the current study that presently drive the field of generativity, as adapted from McAdams and Logan's (2004) 10 major propositions.

Generativity is defined as concern for and commitment to the well-being of future generations. This definition of generativity stems directly from Erikson's (1950,

1963) original definition. Individuals express generativity through various roles, such as parenting, teaching, mentoring, and volunteering. And, in these roles, individuals express generativity when generating new things and/or new people, caring for others, maintaining what is considered "good" within society, and offering to the world those people and/or things that have been generated and cared for (McAdams & de St. Aubin, 1992).

Generativity is considered a developmental construct for midlife. Generativity is situated as the seventh of eight successive human life cycle stages and is considered to occur during midlife (Erikson, 1950, 1963). Currently, the field maintains that while individuals can have generative proclivities during any life stage, generativity is the most salient psychosocial developmental issue during midlife years (McAdams & Logan, 2004). While the current study was not aiming to refute this proposition, its design investigated the impact of mentoring on generativity during young adult years.

Generativity can arise from both agentic (selfish) and communal (selfless) internal motivations. Individual motivation to be generative can be driven by both a desire to produce, generate, or create something in one's own image (agentic) as well as a desire to care for, nurture, and give independence to that which has been produced, generated, or created (communal) (McAdams, 1985). Generative action may result from an individual's need to extend the self beyond his or her lifetime, to leave a "legacy" of sorts—this is considered an agentic motivation. In contrast, however, generative action may also result from an individual's need to contribute to the welfare of others—this is considered a communal motivation (McAdams & Logan, 2004). Many scholars have discovered that highly generative adults tend to pull from both motivations when

engaging in generative action (e.g. de St. Aubin & McAdams, 1995; Mansfield & McAdams, 1996; McAdams et al., 1986; Peterson & Stewart, 1993).

Cultural demand can serve as an external motivation for generativity. Cultural demand describes societal expectations placed on an individual based on his or her age and is considered an external motivation source for generativity (McAdams & de St. Aubin, 1992). Generativity may be contingent upon developmental expectations and assumptions about "timing" in an individual's social world rather than a discrete developmental stage (McAdams et al., 1998). The current study examined young adults who were placed in an environment where cultural demand (a mentoring relationship) exists for them to be generative in order to see if these young adults were likely to be more generative than their peers.

Individuals differ with regard to generativity. Generative proclivities differ among individuals. In other words, some individuals are more generative than others (McAdams & Logan, 2004). Scholars have utilized a variety of measures to assess these individual differences, such as the Loyola Generativity Scale (LGS) developed by McAdams and de St. Aubin (1992) to measure differences in generative concern, the Generativity Behavior Checklist (GBC) developed by McAdams and de St. Aubin (1992) to measure differences in generative behaviors, and a personal strivings measure developed by Emmons (1986) to measure differences in generative commitment.

Individual differences in generativity predict various social involvements. Highly generative individuals tend to have a more extensive friendship network, a greater satisfaction with social relationships, a stronger sense of community, and a stronger sense of political efficacy (Cole & Stewart, 1996; Hart et al., 2001). Further, generativity is the

strongest and most consistent predictor of social responsibility in family, work, and community domains, even after controlling for age, social class, and other demographic factors (Rossi, 2001a).

These six propositions (adapted from the 10 offered from McAdams and Logan (2004)) are some of the most empirically grounded theoretical offerings in the field of generativity. The current study assessed some of the aforementioned offerings to perhaps extend the field's understanding of generativity among young adults.

Generativity in the College Student/Young Adult/Adolescent Context

Erikson's conception of identity (stage 5 within the life cycle) has historically been a focus of study for college student development scholars. James Marcia (1966) furthered Erikson's psychosocial stage development theory by offering four identity statuses, arguing that an identity status is not limited to one stage, but can occur throughout a lifetime. Marcia first offered two critical variables that define the axes for each identity status: (a) exploration (crisis) and (b) commitment. The following four identity stages offered by Marcia denote the type of balance between crisis and commitment: (a) foreclosure, which is defined by no crisis and commitment, (b) moratorium, which is defined by crisis and no commitment, (c) identity achievement, which is defined by both crisis and commitment, and (d) diffusion, which is defined by no crisis and no commitment.

Arthur Chickering introduced a major college student development theory in 1969 that also drew specifically from Erikson's identity development ideas. Furthered by collaboration with Linda Reisser, Chickering and Reisser (1993) sought to describe the

experience of college students by identifying developmental issues such as developing competence and managing emotions.

Utilizing data from achievement tests, personality inventories, diaries, and interviews among other instruments, Chickering and Reisser (1993) proposed seven vectors that describe psychosocial maturity during the college years, including: (a) developing competence in areas such as intellectual, physical, and interpersonal competence, (b) managing emotions by recognizing, accepting, appropriately expressing, and controlling them, (c) moving through autonomy toward independence resulting in increased emotional independence, (d) developing mature interpersonal relationships (originally called freeing interpersonal relationships), (e) establishing identity which depends on the previous vectors, (f) developing purpose in terms of goals, personal activities, and interpersonal commitments, and (g) developing integrity which includes humanizing values, personalizing values, and developing congruence.

McAdams et al. (1998) suggested that identity development need not be reserved for a psychosocial stage during late adolescence or early adulthood as presented by Erikson (1950, 1963), but rather identity development is something that is constructed and reconstructed throughout a person's adult life through narration, and the "generativity script" (p. 12) is one piece of that life narration. A number of scholars discovered an intersection between identity development and generativity (Imada, 2004; Komives, Owen Longerbeam, Mainella, & Osteen, 2005; Komives, Longerbeam, Owen, Mainella, & Osteen, 2006; Singer, King, Green, & Barr, 2002). Singer, King, Green, and Barr (2002) examined "rising to the occasion" narratives of 22 college students involved in a service-learning program (in essence, an academic program that involves direct

community work) in order to ascertain whether or not reflection upon community service merges personal identity and civic responsibility. Compared to a similar group of students who merely engaged in a summer internship (n=21), no significant difference existed with regard to generative concern (as measured by the LGS) and generative action (as measured by a modified GBC). Further analysis revealed, however, a significant correlation between personal identity narratives and generative concern among the service-learning students. In essence, the more the service-learning students felt they grew from their experience, the more likely they were to demonstrate generative concern. Moreover, among the service-learning student population, the LGS score was the only statistically significant predictor of stress-related growth (self-perceived outcomes that result from a stressful life experience). The same was not true for the comparison group.

Imada (2004) argued that adolescent identity and adult generativity are closely related, stating that resolving certain psychosocial conflicts should not be experienced in only one particular Eriksonian stage, but experienced in all stages. Imada postulated that acquiring virtues is not "unidirectional", but witnessed in the interaction between generations (p. 92). In other words, an individual develops psychosocially by activating psychosocial development in another person. Imada described, for example, that the older adult's generative expression supports the need for identity development in the younger generation. In essence, the young person is able to develop his or her identity through interaction with an older adult who is engaging in generative action. Looking deeper into Imada's argument, however, one might also hypothesize that a college student enhances his or her own identity development by engaging in generative behavior

with someone from a younger generation. Further, one might ask: Does a college student also develop his or her identity by activating psychosocial development in a younger person?

Komives, Owen, Longerbeam, Mainella, and Osteen (2005) conducted a grounded theory study to examine how college students develop their leadership identities. Utilizing a series of three in-depth interviews with each of 13 students from a mid-Atlantic research university, the authors discovered from the data that a leadership identity develops through a six-stage developmental process. Figure 3 (see p. 44) lists the stages and provides a short description of each stage.

As one can see from Figure 3 (see p. 44), the college students' leadership identities moved from being aware of what a leader is to being generative in their own leadership behavior. Komives et al. (2005) reported that the participants' leadership identities were formed by the intersection of their developing selves and group influences. This intersection changed the participants' views of themselves and their relationships with others. Further, the intersection broadened their view of leadership from leader-centric to a collaborative and relational process (Komives et al., 2005).

Komives, Longerbeam, Owen, Mainella, and Osteen (2006) furthered the aforementioned 2005 study by creating a leadership identity development (LID) model based on the six aforementioned stages and providing more in-depth views to each stage. With regard to the generativity stage (stage five), Komives et al. noted that the participants transitioned out of stage four and emerged in stage five when they began to articulate a passion and a commitment to serving the larger purposes of whatever group or organization with which they were involved. Moreover, the participants demonstrated

generativity when they concerned themselves with the continuity of their group or organization, acknowledged a responsibility for developing others, and began coaching and mentoring younger peers. Within stage five, participants demonstrated a deeper commitment to develop interdependence among individuals within the group or organization. Further, the participants viewed leadership as a process as well as a responsibility held by all group members.

Stage	Description
1: Awareness	Recognition that leaders existed
	Viewed leadership as external to self
	Did not personally identify as a leader
2: Exploration/Engagement	Intentional involvement in groups
	Take on responsibilities within groups
	Observed adult and peer leaders
3: Leader Identified	Recognize groups as being comprised of leaders and followers
	Leaders do leadership (leader-centric view)
	The only leaders are the ones with a leadership position
4: Leadership Differentiated	Recognition that anyone in the group can do leadership
	Leadership is a process between and among individuals
	People in groups are highly interdependent
	The positional leader has a responsibility to be the facilitator, community builder, and shaper of group culture
5: Generativity	Active commitment to larger purpose of group
	Articulate personal passion for activities
	Leadership is a form of service
	Accept responsibility for developing others and developing organizations
	Desired to enhance leadership capacity of younger group members
6: Integration/Synthesis	Leadership considered a daily process
	Confidence in abilities to effectively work with people
	Understands organizational complexity
	Can apply leadership to a variety of contexts

Figure 3. Leadership identity stages (Komives et al., 2005).

With regard to leadership, McAdams and de St. Aubin (1998) posed another important research question for future scholars: What is the relationship between generativity and leadership? These authors noted that, "It seems intuitively right that some kinds of highly effective leaders owe their success to their generative capacities and inclinations" (p. 489). Considering that the participants in the current study are considered college student leaders, perhaps the results of the current study can provide an answer.

College mentoring programs are designed with the belief that these types of programs develop leaders (Posner & Brodsky, 1992; Ryan, 1994; Seitz & Pepitone, 1996). Students who engage in leadership development programs are found to have increased leadership skills in goal-setting, decision-making, collaboration, visioning, creative thinking, conflict resolution, personal and social value development. In addition, students who engage in leadership development programs tend to have an increased commitment to develop the same kinds of skills in others and to serve the common good (Astin & Leland, 1991; Bennis, 1989; Cress, Astin, Zimmerman-Oster, & Burkhardt, 2001; Lipman-Blumen, 1996; Wielkiewicz, 2000). The following section examines mentoring and its intersection with generativity.

Mentoring Research

Mentoring is considered a reciprocal relationship (Reich, 1986) in which a more experienced person and a less experienced protégé mutually benefit (Campbell & Campbell, 1997; Noe, 1991). A mentoring relationship is a shared experienced between two individuals, is both active and intentional, and is focused on the protégé's needs (Gardiner, Enomoto, & Grogan, 2000). The more experienced person in the relationship,

the mentor, typically takes on roles such as role model, tutor, sponsor, motivator, and coach (Carter, 1982; Evans, 2000; Jacobi, 1991; Levinson, Darrow, Klein, Levinson, & McKee, 1978; Lyons, Scroggins, & Rule, 1990; Merriman, 1983, as cited in Moerer, 2005). The purpose of the relationship is to develop the protégé through helping him/her acquire knowledge, skills, and self-confidence in hopes that he/she becomes a better employee, student, or organizational leader (Burke, 1984; Fagan & Walter, 1982).

For the protégé, the outcomes of the mentoring relationship are higher credibility levels, greater confidence, greater strengths awareness, and human resource skill development (Barnett, 1990; Daresh & Playko, 1990; Reiche, 1986, as cited in Moerer, 2005). For the mentor, the outcomes of the relationship include increased pride and satisfaction, sharpened challenges and competencies, and greater confidence (Bass, 1990; Newby & Corner, 1997).

Mentoring, an important vehicle for developing leaders (Scott, 1992), is considered one of twelve elements most influential in sustaining workplace excellence from Gallup's survey of over ten million employees and supervisors. In particular, the survey item 'someone at work encourages my development' was found to be a statistically significant factor in determining employee engagement (Wagner & Harter, 2006).

Wagner and Harter (2006) pointed to biological research in "mirror neurons" to explain the power of example in mentoring. These authors discussed that scholars who followed Dr. Giacomo Rizzolatti's discovery of mirror neurons in monkeys discovered similar, yet more complicated, mirror neurons in humans. In essence, whenever a human observes others' actions, his or her brain cells fire as if he or she were doing the action as

well. Thus, one could conclude that positive interaction between a less experienced employee (a mentee) and a seasoned employee (a mentor) could aid the less experienced individual in learning proper action and behavior that, ultimately, leads to successful workplace outcomes. Wagner and Harter (2006) asserted that personal interaction is necessary in order to adequately address the factor of 'someone at work encourages my development.' They articulated this notion: "…['someone at work encourages my development'] requires a higher degree of personal investment by the counselor in the education of his charge" (p. 81).

Despite the many documented benefits of mentoring, is a "shared experience focused on a protégé's needs" enough for the protégé (or the mentor for that matter) to feel that development was encouraged? How can a mentor be purposeful in developing the protégé's knowledge, skills, and self-confidence in his or her role as tutor, sponsor, motivator, role model, and coach? Do mirror neurons provide enough hope for the protégé to become a better employee, student, or organizational leader?

Dr. William E. Hall, one of the recognized fathers of positive psychology, offered the idea of investment relationships in his 1965 unpublished manuscript, "The Great Experiment." Hall (ca. 1965) defined relationship as the response one makes to the existence of another person and asserted that strong, positive relationships with "difference makers" impact a person's ability to discover and develop his or her talents.

As compared to other types of relationships, investment relationships are a purposeful effort to achieve higher self-realization of the greatest resource—the human resource. Hall (ca. 1965) described three levels of relationships: (a) exploratory (this would include early responses made to a person being met for the first time), (b) work-a-

day (these are the relationships formed between those who meet together on a daily basis), and (c) investment (these are relationships that have the power to change people's lives). Investment relationships are somewhat analogous to what occurs in the banking business. An investment in another person yields dividends for the investor. Hall (ca. 1965) asserted that lasting, significant differences in human beings can only become a reality when one person invests time in another person on an individual basis. Further, he posited that this is only possible if the investor's "human relations capital" is equal to or greater than the needs of the investee. Hall (ca. 1965) argued that concern for others, no matter how sincere, does not by itself guarantee favorable development.

Moving from "work-a-day" relationships (which perhaps could be considered forced mentoring) to investment relationships involves the mentor intentionally identifying talents in his or her mentees, creating opportunities to develop those talents, and ultimately preparing the investee to become an investor, which creates a ripple effect. In addition, reflection upon the growth, development, and outcomes of the investment relationship also appears to be critical for a mentor (Hall, ca. 1965).

In relating to generativity research, Michael Leffel (2008) offered a new domain for generativity theory and research called *relational generativity*, which is considered both a motive and a capacity to develop strengths in others for whom one cares. Relational generativity involves investing in the strengths development of significant others and can be viewed as: (a) a moral *telos* (a goal to be pursued), (b) a *motive* (to be activated), (c) a *capacity* (to be developed), and (d) an *investment* (to be given).

Leffel (2008) argued that a difference exists between a capacity to *care for* another person and a capacity to *take care of*. Relational generativity describes the

process of moving from a capacity to care for to a capacity to take care of. This furthers Hall's (ca. 1965) notion that concern for others, no matter how sincere, does not by itself guarantee favorable development. While mentoring perhaps captures an opportunity for one person to demonstrate a capacity to *care for* another person (even if the relationship is forced), an *investment relationship* captures an opportunity for one person to demonstrate a capacity to *take care of* another individual. This includes (a) facilitating mutual strengths-development as a goal, (b) typifying an inner drive (or motive) to take care of others, (c) demonstrating a psychological capacity to embody virtues such as hope, will, purpose, competence, fidelity, love, care, and wisdom, and (d) investing oneself as an offering for the sake of others (Leffel, 2008).

Two areas of leadership studies relevant to investment relationships are transformational leadership and servant leadership. James MacGregor Burns (1978) was the first scholar to discuss transformational leadership in his book, *Leadership*. Transformational leadership is defined by its four component behaviors which are significant predictors of work-unit effectiveness: (a) idealized influence, (b) individualized consideration, (c) inspirational motivation, and (d) intellectual stimulation (Lowe & Kroeck, 1996). Transformational leaders raise the level of human conduct, motivation, and morality for both the leader and the follower (Burns, 1978). In addition, transformational leaders serve as coaches and mentors (Barbuto, 1997); in particular, they coach followers in their own development (Howell & Avolio, 1993).

Individualized consideration is perhaps the most relevant construct to investment relationships and includes providing support, encouragement, and coaching to followers (Burns, 1978). Yukl (2006) offered suggestive guidelines based on transformational

leadership research; in particular, one that denotes the importance of expressing confidence in followers (or mentees, in this case). This suggestion involves reviewing the specific strengths, assets, and resources of followers when motivating them toward high-level performance.

Servant leadership is also a relevant field to the discussion of investment relationships. Greenleaf (1977) is considered the father of servant leadership, and he ascribed greatness to the servant leader, because the servant leader is seen as servant first, leader second. Service to followers is the primary responsibility of servant leaders and serves to, ultimately, prepare followers to become servants themselves. This is reflective of Hall's (ca. 1965) "ripple effect" idea. Mentors invest in mentees in the hopes of preparing future mentors.

Greenleaf (1977) contended that servant leaders create a uniquely appropriate role for each follower by drawing on his or her strengths and choosing the right time and place. Furthering this notion, Yukl (2006) suggested that, "It is only by understanding followers that the leader can determine how best to serve their needs" (p. 342). Keenly observing strengths in mentees and creating roles that draw on those strengths is of critical importance for mentors.

Few studies have been conducted to document the positive outcomes of sustained mentoring relationships (Kartje, 1996). In addition, few studies have thoroughly examined mentoring relationships from the mentor's point of view (Allen et al., 1997; Aryee, Chay, & Chew, 1996; Olian, Carroll, & Giannantionio, 1993; Ragins & Cotton, 1993; Ragins & Scandura, 1994, as cited in Moerer, 2005). The current study examined generativity quantitatively in the mentor as well as by qualitatively ascertaining the

mentor's perspective on his/her development as a result of the relationship with the protégé.

As stated at the beginning of this chapter as well as in Chapter 1, the purpose of this mixed methods study was to examine the impact of mentoring relationships on generativity in college students. The following chapter outlines the methods used to address this study purpose.

CHAPTER 3

Methods

The purpose of this mixed methods study was to examine the impact of mentoring relationships on generativity in college students. Chapter 3 outlines the approach and tradition rationale, provides a pictorial representation of the current study's methods, describes the participants as well as the intervention, and explicitly details the methods used in each phase to address the aforementioned study purpose.

Approach and Tradition Rationale

The current study utilized a mixed methods approach, which is a procedure for collecting, analyzing, and mixing or integrating both quantitative and qualitative data during some phase of the research process within a single study to answer particular research questions (Creswell, 2005). The rationale for integrating both types of data was that experimental results needed enhancing in order to be fully understood. Neither quantitative nor qualitative methods were sufficient alone to completely capture the trend of generativity differences and to fully describe the mentoring relationships' impact on generativity. The qualitative methods used were intended to complement the quantitative methods by providing a more complete picture of the impact of mentoring relationships on generativity. By garnering the perspectives of those involved, the participant voice was used to further explain the quantitative results.

The current study used an embedded explanatory sequential mixed methods design. In this design, the researcher collects both quantitative and qualitative data either sequentially or concurrently, with one form of data playing a supportive role to the other (Creswell & Plano Clark, 2011). The supporting qualitative data, in the current study,

was collected after the quantitative phase. The qualitative data collected in response to the quantitative generativity results allowed important findings to surface that otherwise might have been missed by the quantitative instruments alone (see Figure 4 on p. 54).

In the first phase, quantitative quasi-experimental methods were used to examine differences in generativity between the intervention group and two different control groups. In the second phase, qualitative phenomenological methods were used to further extend an understanding of the quantitative results. Thus, the qualitative data played a supportive role to the quantitative data in order to more fully explain the statistical results by exploring participants' views of their generativity. One challenge in using this kind of design included specifying the specific purpose for collecting the secondary data.

To date, generativity research has been largely quantitative. Furthermore, the breadth and extent of the current study's literature review revealed no mixed methods approach to examining generativity. Therefore, the current study not only advances what is known about generativity in young adults, but also the methods by which generativity can and perhaps should be explored.

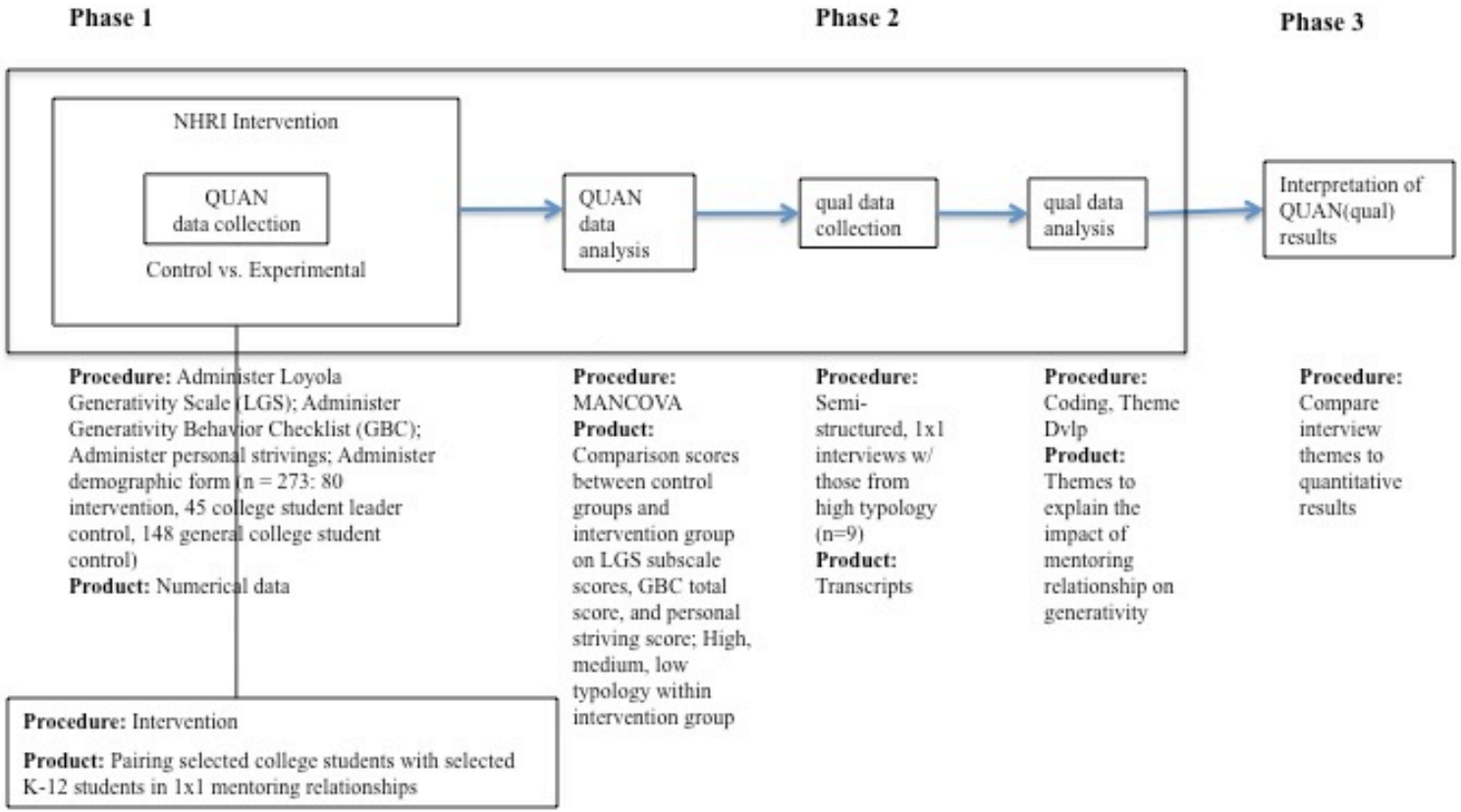

Figure 4. Research procedures for embedded explanatory sequential design.

Participants

All participants for the current study were college students attending the University of Nebraska-Lincoln (UNL) between spring and summer semesters of 2011. Participants for the intervention group and for the second qualitative phase were purposively selected based on their involvement in a program called Nebraska Human Resources Institute (NHRI), a leadership development program at UNL. In NHRI, college students attending UNL are selected on the basis of demonstrating significant "human relations capital"—in essence, college students are selected because they exhibit a significant capacity to positively influence the thoughts, feelings, and behaviors of others. Once selected, these students are paired in one-to-one relationships with identified young leaders (K-12) in Lincoln Public Schools who also demonstrate significant "human relations capital." At any given point in time, NHRI works with approximately 130 college student leaders at UNL and 130 young leaders (K-12) in Lincoln Public Schools. The current study focused on the college student leaders involved in NHRI.

The quantitative phase of the current study compared the intervention group to two different control groups: (a) college student leader control group and (b) general college student control group. Participants in the college student leader control group were college students who were involved in campus leadership programs, such as the Association of Students at the University of Nebraska (ASUN) (student government), New Student Enrollment (NSE) leaders, Greek house presidents, Panhellenic Council, and Interfraternity Council, but were not actively mentoring. Participants in the general college student control group were sampled from all college students attending UNL.

Sampling procedure. Study participants in the intervention group included all of the students selected for the NHRI program who had been in the program at least one academic year. Sampling in this manner could be considered using a purposive sampling technique, with the intention of sampling for special or unique cases (Teddlie & Yu, 2007).

Students selected for NHRI are college students attending UNL who are, first, nominated by other students, UNL faculty, and/or UNL staff for NHRI during their freshman year. Students who are nominated for NHRI go through structured qualitative interviews to assess their leadership and relationship-building qualities, such as sense of mission, empathy, rapport drive, listening, individual perception, investment, position, activation, gestalt, focus, work ethic, acceptance, and diversity. Sixty-five questions are used in the selection interview, loading five questions into each of the thirteen aforementioned assessment areas. Approximately 40 – 45 students are selected for NHRI each year. Since selected college students are in the program for three years, NHRI has approximately 130 college students in the program at any given time. For the current study, the intervention group had 80 participants.

Study participants in the college student leader control group included all of the students selected for the following campus leadership programs: (a) ASUN, (b) NSE leaders, (c) Greek house presidents, (d) Panhellenic Council, and (e) Interfraternity Council. These students were considered campus leaders, but were not involved in the NHRI program. The number of participants from this group totaled 45.

General college student control group participants were sampled from the general UNL college student body utilizing a cluster sampling procedure. Summer classes

offered at UNL during the summer, 2011 term were randomly selected in order to yield 24 classes, assuming that each class would have at least 10 enrolled students. Instructors were contacted for each of the 24 classes, and 11 instructors consented. The author visited each of these 11 classes and invited all students to participate. The number of student participants from this group totaled 148.

A power analysis was conducted utilizing the G*Power 3.0.3 software program (Faul, Erdfelder, Buchner, & Lang, 2009) to determine how large of a sample size would be needed in order to enable accurate and reliable statistical judgments. For a medium effect size of 0.25, power at 0.8, three groups (intervention and two control groups), one predictor (presence of a mentoring relationship), and three response variables (generative concern measured by the LGS, generative action measured by the GBC, and generative commitment measured by the personal strivings measure), the total sample size (encompassing all three groups) needed to be 48. Thus, a final sample size of 273 was more than adequate to enable accurate and reliable statistical judgments.

All study participants were required to be 19 years or older. Informed consent was obtained from all participants. Participants learned that the data collected from them was held confidentially and reported anonymously. Institutional Review Board (IRB) approval was obtained before conducting the study (see Appendix C).

Intervention

As previously mentioned, intervention participants were selected based on their involvement in a program called the Nebraska Human Resources Institute (NHRI), a leadership development program at the University of Nebraska—Lincoln (UNL). The program was founded in 1949 by Dr. William E. Hall and Dr. Donald O. Clifton and has

more than 60 years of experience in mentoring relationships. Below are NHRI's mission and basic assumptions:

Mission:

- To **Discover** individuals with exceptional capacity to positively influence the thoughts, feelings, and behaviors of others
- To **Explore** the dimensions of human leadership and ways in which this potential can be maximized
- To **Develop** leadership potential through one-to-one investment relationships
- To **Direct** developed leadership toward reinvestment in others
- To **Document** positive leadership development
- And to **Communicate** this information

Basic Assumptions:

- The greatest resource is the human resource
- Establishing positive human relationships is the best way to develop this resource
- Positive human relationships are maximized when one individual with considerable human relations capital invests in another
- Investment in human relationships nourishes positive leadership development

College students selected for the program (called "counselors") are paired with selected K-12 students (called "junior counselors") based on common interests. The two meet at least once per week for three years. The objective for the counselor is to identify leadership talents within their junior counselor and to develop those leadership capacities by creating "stimulus situations." For example, if a counselor recognizes that his/her junior counselor has high rapport drive, that counselor might challenge the junior counselor to evaluate the difference in response when calling others by name versus just saying "hello." The ultimate goal is for the junior counselors to become most effective at making a difference in the lives of others. The counselor invests in their junior counselor with the intention that the junior counselors will then turn to invest in others, creating a "ripple effect" (see Figure 5 on p. 60).

Based on the age or school of their junior counselors, counselors are grouped in "projects." These projects meet weekly for an hour to discuss the progress of their

relationships with their junior counselors. This reflection piece is designed to help each counselor study the development and outcomes of investment relationships. Weekly project meetings are also a time for counselors to receive advice and guidance regarding how to be most effective in mentoring their junior counselors. Each project also conducts monthly retreats with their junior counselors to examine positive psychology concepts. The counselors typically prepare a curriculum for the retreat, or the entire project engages in a community reinvestment project.

Counselors are also given the opportunity to take a course during one semester of their NHRI experience (commonly referred to as the "NHRI Class"). The course objectives center around self-understanding, understanding others, and investing in others. Counselors who take the course engage in scholarly discussions of positive psychology principles such as empathy, active listening, investment relationships, strengths, and self-concept, among others. Each week, course participants write about their reactions to course concepts and how those concepts apply in their relationships with others. Furthermore, their relationship with their junior counselor serves as the active experience of the course. Course participants keep a weekly diary of their experiences with their junior counselors and create a final project that analyzes and evaluates the application of course concepts in their mentoring relationship.

In sum, college students engage in the following activities during their NHRI tenure: (a) weekly meetings with their junior counselor, (b) weekly project meetings (college students only), (c) monthly retreats (both counselors and junior counselors), and (d) the NHRI Class.

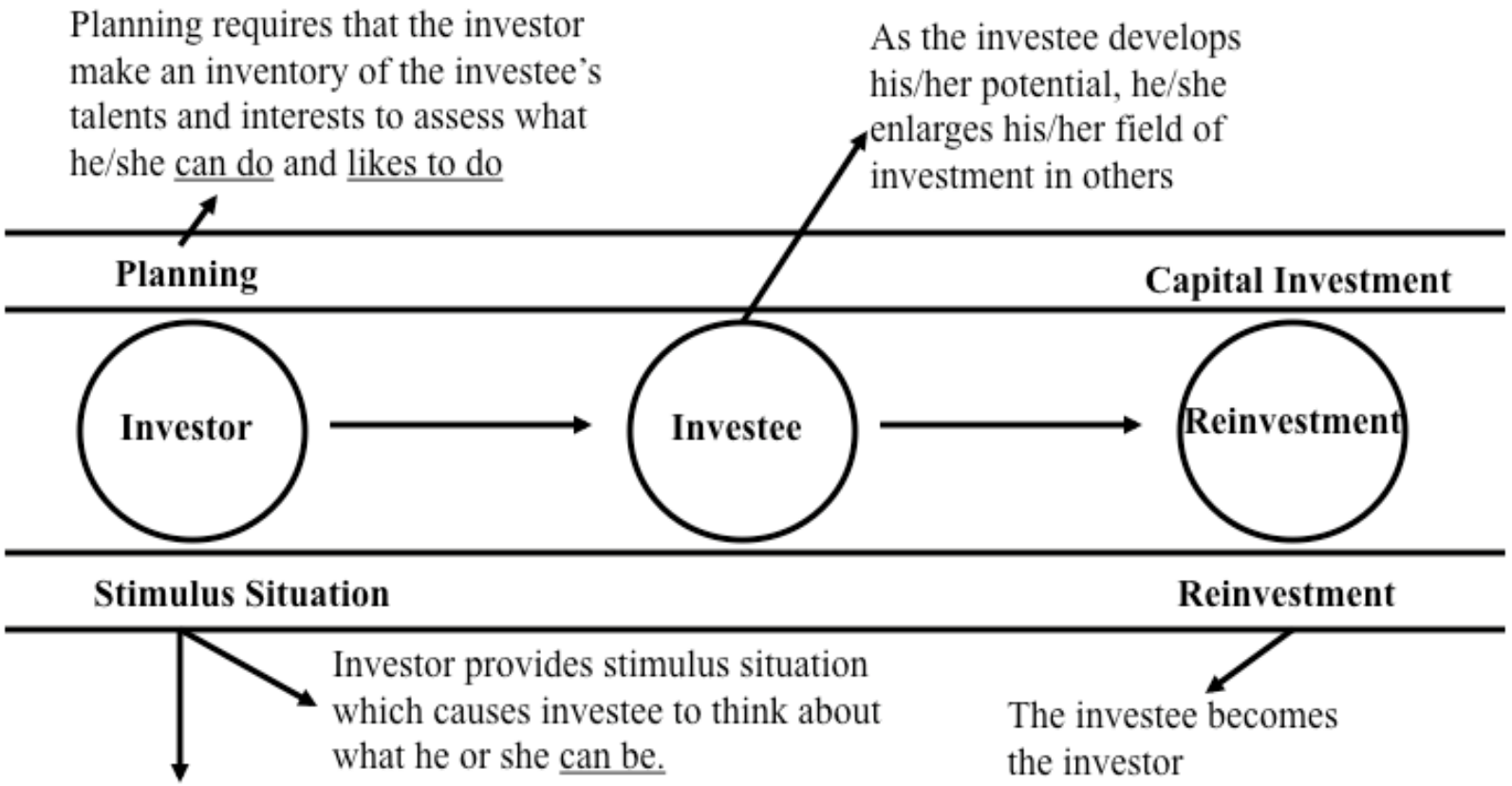

Figure 5. Investment relationships and the ripple effect (Dodge, 1986).

Phase 1: Quantitative

Sampling procedure. As previously mentioned, participants in the quantitative phase came from three different groups: (a) intervention group, (b) college student leader control group, and (c) general college student control groups. Participants in the intervention group were college students selected for the NHRI program (n = 80). Considering that most college students selected for NHRI are considered leaders on campus at UNL, the college student leader control group participants were solicited from other leadership groups at UNL in order to remove the confounding influence of being a campus leader on generativity. The following campus involvement groups constituted the pool from which the college student leader control group was recruited: (a) the Association of Students at the University of Nebraska (ASUN), (b) New Student Enrollment leaders, and (c) the Greek System (e.g. Greek presidents, Interfraternity Council, Panhellenic Association). The number of responses from this control group was 45.

Students in the intervention group were given the opportunity to take the assessments during their regular weekly project meetings. The NHRI Graduate Assistant administered the questionnaires in order to minimize any possible coercion by the researcher, who is professionally involved with these students.

For the college student leader control group, the faculty/staff leaders of the aforementioned campus leadership groups were contacted in order to gain their permission to access the student participants in their respective programs. Once granted permission, these students were contacted either in person (the researcher came to one of their meetings) or via e-mail. These students either completed the assessments in person

or were given a link to take the Loyola Generativity Scale (LGS), the Generativity Behavior Checklist (GBC), and the open-reports of personal strivings online (Personal Strivings Measure).

The general college student control group participants were selected from the overall UNL student body utilizing a cluster sampling procedure (Teddlie & Yu, 2007). Twenty-four undergraduate courses (clusters) during the summer term, 2011 were randomly selected from all subject areas assuming each cluster had at least 10 enrolled students. Course instructors of the 24 aforementioned courses were contacted, 11 consented, yielding 148 student respondents.

Instructors from the sampled classes were contacted in order to gain their permission to access students enrolled in their respective classes. Once granted permission, the researcher visited the class and asked for volunteer participation from the students. Students who agreed to participate were allowed time during class to complete the assessments. Students who had already completed the assessments by virtue of their membership in NHRI or other student leadership organizations were asked to not participate.

In order to improve response rates from all groups, students who responded were given the opportunity to enter a drawing for a $25 gift card to a local restaurant. One student was randomly sampled from the list of all respondents who entered the drawing and was awarded the gift card.

Research design and data collection. A group comparison design was employed for the first phase of the current study. Participants in the control groups and the intervention group completed the Loyola Generativity Scale (LGS), the Generativity

Behavior Checklist (GBC), and open-ended reports of personal strivings as suggested by McAdams and de St. Aubin (1992) and McAdams et al. (1993). In addition, participants completed a demographic questionnaire that included questions regarding the covariates in the study: age, G.P.A. range, major, and gender (see Appendix B). All of the assessments combined required approximately 10 to 15 minutes to complete.

The Loyola Generativity Scale (LGS) is a 20-item self-report scale using a four-point Likert-type response option (0=Statement never applies to you, 3=Statement applies to you very often) that assesses primarily individual differences in generative concern. The 20 items load into five subscales: (a) passing on knowledge to the next generation (questions 1, 3, 12, and 19), (b) making significant contributions for the betterment of one's community (questions 5, 15, 18, and 20), (c) doing things that will have an enduring legacy (questions 4, 6, 8, 10, 13, and 14), (d) being creative and productive (questions 7 and 17), and (e) caring for and taking responsibility for other people (questions 2, 9, 11, and 16). The LGS has high internal reliability (Cronbach Alpha for adult sample, $r = .84$; Cronbach Alpha for college sample, $r = .83$ in McAdams & de St. Aubin, 1992). In both the college and adult samples, each item showed relatively (a) wide response variability, (b) high correlations with the total LGS score, (c) high correlations with external generativity measures (demonstrating convergent validity) such as Ochse and Plug's (1986) 10-item generativity subscale and Hawley's (1984) 14-item generativity scale, and (d) low and nonsignificant correlation with Ochse and Plug's (1986) Social Desirability (SD) scale (demonstrating discriminant validity) (McAdams & de St. Aubin, 1992). Further, the LGS demonstrated moderately high test-retest reliability ($r = .73$ over a three-week interval) (McAdams et al., 1993). With regard to its

use with a younger population, Lawford et al. (2005) discovered that LGS scores of respondents aged 17 to 23 were significantly correlated to measures of positive adjustment (social support, lack of depression, and self-esteem), mirroring McAdams' (2001) report of similar findings among adult populations. Lawford et al. (2005) also reported considerable consistency in individual LGS scores between ages 19 and 23, further demonstrating strong test-retest reliability. Since the LGS has demonstrated both convergent and discriminant validity, one might conclude that the LGS has adequate construct validity, meaning that the LGS effectively measures the psychosocial construct of generative concern. This data collection procedure was utilized to assess differences in generative concern (refer to Figure 4 on p. 52) between the intervention group and the control groups.

The Generativity Behavior Checklist (GBC) is a 50-item objective self-report that measures real-life generativity acts (McAdams & de St. Aubin, 1992). The respondent rates each item on a scale from 0 to 2 based on how often each generative action was performed in the previous two months (0=Act had not been performed during the previous two months, 1=Act had been performed once during the previous two months, 2=Act had been performed more than once during the previous two months). Each item on the checklist is phrased as a behavioral act that corresponds with generative action: creating, maintaining, or offering (refer to Figure 2 on p. 16). When first tested by McAdams and de St. Aubin, the behavioral checklist had 65 items—49 indicative of generative acts and 16 not indicative of generative acts. On the final 50-item GBC, 40 items measure generativity while 10 are considered fillers (see Appendix B). Scores on generative acts demonstrated positive and significant associations with LGS scores (r =

.59, $p < .001$) (McAdams & de St. Aubin, 1992). Data analysis from McAdams et al.'s (1993) study of generativity among young, midlife, and older adults yielded similar results. Among the entire sample (N = 152), summed scores from the 40 generative items (on the 50-item GBC) correlated significantly and positively with the total LGS score ($r = .53$, $p < .001$). Hart et al.'s (2001) examination of generativity and social involvements utilizing the 50-item GBC, open-ended reports of personal strivings, open-ended descriptions of autobiographical episodes, and the LGS also yielded similar results with 253 midlife adults. Scores on the 40 generative items within the 50-item GBC demonstrated significant correlation with total LGS scores ($r = .46$, $p < .001$). The GBC data collection procedure was utilized to assess differences in generative action (refer to Figure 2 on p. 16) between the intervention group and the control groups.

The open-ended reports of personal strivings is a data collection procedure adapted from Emmons (1986) that measures generative commitment. Participants were prompted to write ten sentences, each beginning with "I typically try to…", and each describing a personal striving. Two blank lines were provided for each striving. Personal strivings were defined as "the things that you typically or characteristically are trying to do in your everyday life" and as the "objectives or goals that you are trying to accomplish or attain" (McAdams et al., 1993, p. 223). Each participant's list of ten strivings was coded for generativity themes. Data from McAdams et al.'s (1993) study revealed significant, positive correlations between summed personal strivings scores and the total LGS score ($r = .23$, $p < .01$) as well as the summed 40 generativity items on the GBC ($r = .20$, $p < .05$). Hart et al.'s (2001) data analysis also revealed that personal strivings scores correlated significantly and positively with both the total LGS score and the sum of the

40 generativity items on the GBC ($r = .29$, $p < .001$ and $r = .26$, $p < .001$, respectively). This personal strivings data collection procedure was utilized to measure differences in generative commitment (refer to Figure 2 on p. 16) between the intervention group and the control groups.

Collecting quantitative data using the LGS, the GBC, and open-ended reports of personal strivings measured differences between the intervention group and the control groups on generative concern, generative action, and generative commitment. Generative concern, action, and commitment are three hallmark psychosocial constructs of McAdams and de St. Aubin's (1992) generativity theory.

Data analysis. With regard to the LGS, each respondent received a score for each subscale as well as a total LGS score. For the GBC, each respondent received a total score across all of the 40 generativity items.

For the personal strivings measure, each striving was coded for generative commitment, following a procedure established by McAdams et al. (1993). To code strivings for generative commitment, the scorer examined three different generativity categories in each sentence: (a) involvement with the next generation, as in strivings involving children, young people, or subordinates; (b) providing care, help, assistance, instruction, guidance, and comfort, or attempting to promote or establish a positive outcome in another person's life; and (c) making a creative contribution to others or society in general. Each striving was coded for the presence (score=1) or absence (score=0) for each generativity category. Some strivings received multiple points for scoring in multiple categories. One example offered by McAdams et al. (1993) was a striving of sewing a dress for a granddaughter. This particular striving would receive a

score of 2, because it indicates both a creative contribution as well as involvement with the next generation. The scores for all ten strivings were then summed for each participant.

The LGS subscale scores, the GBC total score, and the personal striving total score were entered into SPSS v. 19 where individual scores and total group scores were tabulated. A multivariate analysis of covariance (MANCOVA) was conducted to see if the presence of a mentoring relationship resulted in significant differences in variance between the control groups and the intervention group on generativity (more specifically, the linear combination of generativity variables) at the $p < .05$ significance level while statistically removing the potential influence of age, gender, G.P.A. range, and college major (covariates). The quantitative results were used to create a typology in order to select cases for the second phase. Furthermore, the quantitative results were utilized to determine questions for the interview protocol in the second phase.

Phase 2: Qualitative

Phase 1 and Phase 2 were connected two different ways. First, the quantitative results determined who was selected to participate in the second phase of interviews. Second, the qualitative data were analyzed in order to explain the quantitative results in further detail.

Sampling procedure. In order to answer the research question, *what meaning do college students ascribe to their experiences with generativity in the context of mentoring*, only students from the intervention group were sampled. Quantitative phase results suggested that participants for the qualitative phase be selected using a purposive sampling technique, with the intention of sampling within the intervention group for

special or unique cases (Teddlie & Yu, 2007). The quantitative results were organized to create a typology within the intervention participants of: (1) high generativity, (2) mid-level generativity (3) low generativity. Quantitative phase results (as discussed in Chapter 4) provided justification for selecting cases in the high generativity group. Since the intervention students by enlarge demonstrated higher generativity than their peers, the researcher felt that those with the highest generativity could offer the richest data. Cases that were in the high generativity group (top 33 percent) for each generativity measure were recorded. The cases that were listed in the high generativity group for more than one measure were solicited for an interview. The NHRI Graduate Assistant contacted 28 students who met the above criteria for an interview in order to minimize coercion. The first nine to respond were interviewed. Since the qualitative data were intended to serve a secondary role to the quantitative data, the author hypothesized that data saturation could be adequately reached with nine participants.

Qualitative research strategy. A phenomenological design was used for collecting and analyzing data in this qualitative phase. Phenomenological research is used to examine lived experiences (Hatch, 2002). A qualitative research approach, phenomenology seeks to comprehend the "essence" of an experience by gathering comprehensive descriptions of the experience from those at study (Moustakas, 1994, p. 13). The ultimate purpose is to derive what the experience means for those involved.

Phenomenology, in particular transcendental phenomenology, has an extensive array of philosophical assumptions. Transcendental phenomenology is grounded in the principles of intentional consciousness, intuition and self-reflection, and subject-object interconnectedness for the research subject (Moustakas, 1994).

Intentional consciousness refers to purposely directing one's consciousness toward an object (Moustakas, 1994). Phenomenology assumes that the reality of that object for the research subject is in direct relation to that person's conscious experience of it. Intuition and self-reflection refer to how the research subject perceives the object and produces judgment regarding the object of consciousness. Phenomenology is primarily interested in capturing the essence of multiple research subjects' perceptions and meanings with regard to a common phenomenon. Subject-object interconnectedness assumes that subjects and objects are not dichotomous. The reality of an object is created purely within the research subject's meaning attributed to the experience with the object (p. 32).

For the researcher, transcendental phenomenology is grounded in the major processes of epoche, transcendental-phenomenological reduction, imaginative variation, and intersubjectivity (Moustakas, 1994). Epoche refers to removing all presuppositions regarding the phenomenon. Transcendental phenomenology encourages the researcher to enter the study with all prejudgments, biases, preconceived notions, and prior experiences with the phenomenon removed (Moustakas, 1994). By engaging in the epoche process, the researcher is well equipped to engage in "intersubjectivity"; in other words, the researcher is well equipped to see the phenomenon through the eyes of the research subjects (p. 57). Epoche then relates to "phenomenological reduction", which involves studying the phenomenon from a completely fresh, open, and new perspective (pp. 33 – 34). Phenomenological reduction allows the researcher to produce pure textural descriptions of the phenomenon as experienced by the research subjects. The researcher is encouraged to focus on the qualities of each subject's experience and to describe those

qualities texturally (hard, soft, high, low, etc). "Imaginative variation" follows transcendental-phenomenological reduction and refers to the process by which the researcher ascertains the structural essences of experiences (p. 35). The process of describing the structural essences of experiences involves the researcher considering all possible conditions and contexts that precede and have an influence upon the phenomenon at study. The final major process for the researcher is to integrate and synthesize the textural and structural to capture the "essence" of the phenomenon (p. 100).

Data collection procedure. For this phase, in-depth, semi-structured interviews were conducted after the quantitative analysis was complete in order to ascertain the intervention participants' experiences with generativity in the context of their mentoring relationship (see Appendix A). Further, these interviews were utilized to explain the quantitative findings in more detail. As one would expect, first-person accounts of life experiences are the primary source of evidence in phenomenological research (Moustakas, 1994). Therefore, utilizing first-person interviews is an accepted and encouraged method for gathering data within the phenomenological tradition (Hatch, 2002).

McAdams (2001) noted that quantitative generativity measures fail to show differences between individual meanings of generative efforts. The qualitative phase in the current study enhanced an understanding of the meaning of the quantitative outcomes. In addition, the use of qualitative interviews allowed the participant voice to provide a richer influence on the data interpretation.

Guiding questions were prepared for the interview, but leads presented by the respondents were followed. The types of questions asked were descriptive and structural. Contrasting-type questions were asked during probing, modeled after Hatch's (2002) recommendations in developing essential questions. The participants were informed of the "no right or wrong answer" rule. The interviews lasted approximately 30 minutes each and were either conducted in the conference room in 300 Agricultural Hall or in the NHRI Student Meeting Space.

The qualitative phase participants were contacted by e-mail prior to the interview to explain what this phase of the study involved, what was expected of them, and what they could expect from the researcher. This procedure followed Moustakas' (1994) recommendation to hold a pre-meeting with potential research subjects to discuss the nature of the research topic and how the research is being conducted. Moustakas argued that this pre-meeting allows the researcher to determine whether or not the potential subject is a good fit for the study. Furthermore, the pre-meeting allows the research subject to bring the phenomenon into consciousness, reflect on his or her experiences with the phenomenon, and therefore bring richer data to the actual interview (p. 108).

In order to avoid coercion, sampled participants were contacted by a person unrelated to the study (the NHRI Graduate Assistant). The participants were solicited for an interview, given the opportunity to ask questions, then asked to participate and to sign an informed consent document.

Hatch (2002) described reciprocity as an ethical issue in that researchers should specify what he/she contributes to the bargain. The broad purpose of the study was explained to the participants as well as the importance of their perspective in explaining

the quantitative outcomes. Hatch also described the necessity for having an exit strategy from the research site. An informal debriefing with the study participants was scheduled after the project's completion.

The interview questions were derived from a variety of sources. Some of the questions (questions 1 – 5) were adapted from Bradley and Marcia's (1998) Generativity Status Measure (GSM) as well as Moustakas' (1994) general interview guide. Bradley and Marcia created the GSM as a way to measure the extent to which an individual has resolved Erikson's (1950, 1963) generativity-stagnation stage. In order to establish concurrent validity, Bradley and Marcia tested convergence between the GSM and the LGS as well as Ochse and Plug's (1986) generativity subscale (OPES generativity subscale). Within their sample (N = 100, ages 42 to 64, 50 male, 50 female), participants who were classified as *Generative* on the GSM (highest resolution of Erikson's generativity stage) scored significantly higher on the LGS ($t(95) = 4.41$, $p < .0009$) and the OPES generativity subscale ($t(95) = 3.98$, $p < .0009$) than participants who were classified as *Stagnant* (lowest resolution of Erikson's generativity stage) on the GSM. Correlation analyses between the GSM and the LGS as well as the OPES generativity subscale yielded similar results. GSM scores of participants who were classified as *Generative* correlated positively with both the LGS inventory ($r = .39$, $p < .001$) and the OPES generativity subscale ($r = .26$, $p < .01$). Conversely, GSM scores of participants who were classified as *Stagnant* correlated negatively with both the LGS inventory ($r = -.44$, $p < .001$) and the OPES generativity subscale ($r = -.41$, $p < .001$).

Moustakas (1994) suggested utilizing a general interview guide in order to obtain the richest data from the research subjects. The following questions were suggested for a general interview guide:

1. What dimensions, incidents, and people intimately connected with the experience stand out for you?
2. How did the experience affect you? What changes do you associate with the experience?
3. How did the experience affect significant others in your life?
4. What feelings were generated by the experience?
5. What thoughts stood out for you?
6. What bodily changes or states were you aware of at that time?
7. Have you shared all that is significant with reference to the experience? (p. 116)

While questions 1 – 5 on the interview protocol were not taken directly from Bradley and Marcia's (1998) Generativity Status Measure (GSM) and Moustakas' (1994) general interview guide, they were modeled after both. Therefore, interview questions 1 - 5 on the interview protocol should be viewed as empirically strong questions given their relationship to established generativity measures, such as the LGS and the OPES generativity subscale, as well as their relationship to standard questions in the phenomenological tradition.

The remaining interview questions were based on the results from the quantitative phase. As previously mentioned, the qualitative phase was designed to further explain the quantitative results. Based on the results from the LGS, GBC, and personal strivings measures, questions 6 and 7 were formulated to target participant views on generative

concern, generative action, and generative commitment, and the impact of their NHRI experience on their generativity (see Appendix A).

Data analysis. The qualitative data for this phase were analyzed inductively, as demanded by the tenets of qualitative research. Inductive analysis involves examining specific data, finding patterns and interrelationships among those data points, then compiling those patterns and interrelationships into a "meaningful whole" (Hatch, 2002, p. 161).

For the current study, each interview was audio taped and transcribed by the researcher. The transcripts were saved in a Word format and analyzed in Word. Considering that only nine interviews were conducted, the researcher was advised by a methods doctoral student to analyze in Word rather than purchase a qualitative software program, such as MAXqda2. Steps in the qualitative analysis followed the analysis procedure recommended by Moustakas (1994). Figure 6 (see p. 75) outlines these steps in detail.

Data analysis for this phase followed traditional phenomenological analysis procedures (Creswell, 2007; Moustakas, 1994). First, each transcript was mined for significant statements and statements of meaning as they related to the phenomenon. This involved "horizonalizing" the data, first, or reading interview transcripts and regarding every "horizon" or statement relevant to the phenomenon as having equal value (Moustakas, 1994). From these horizons, significant statements or statements of meaning were identified. These statements were clustered into common categories or themes and then translated into textural descriptions (what the participants experienced) and structural descriptions (contextual influences on how the participants experienced the

phenomenon). Finally, the textural and structural statements were combined to capture the essence of the phenomenon.

Step 0: Epoche	The researcher should fully disclose and describe his or her experience with the phenomenon.
Step 1: Horizonalization	Identify and list every expression in the transcripts relevant to the phenomenon.
Step 2: Determine Invariant Constituents	Test each expression identified in #1 for two requirements (and remove all statements that fail the test): 1. Is the expression a necessary constituent in order to understand the phenomenon? 2. Can the expression be abstracted and labeled?
Step 3: Cluster and Theme	Cluster related invariant constituents and develop themes for those clusters.
Step 4: Validate Themes	Validate each theme by revisiting the invariant constituents as they appeared in the original transcripts and examine if those statements compatible with the theme.
Step 5: Textural Description	Construct a textural description to describe *what* the participants experienced using the validated themes and invariant constituents.
Step 6: Structural Description	Construct a structural description to describe *how* the participants experienced the phenomenon using the textural description and imaginative variation.
Step 7: Composite Description	Develop a composite description of the meanings and essences of the group's experience with the phenomenon.

Figure 6. Data analysis steps for phenomenology (Moustakas, 1994).

Validation strategies. Data were verified utilizing a number of validation strategies, including member checking, rich and thick descriptions, triangulation, and a peer review (Creswell, 2005; Merriam, 1998).

Member checking. This strategy involved sharing portions of the research with the research subjects. Each interview participant was first given the opportunity to review his/her transcript and was asked to complete an interview validation form, documenting the accuracy of the transcripts. All interview participants verified the accuracy of their transcripts. Next, the interview participants were e-mailed passages of the actual findings and were given the opportunity to verify the representation of their views. No respondent responded with concerns regarding the representation of their views.

Rich and thick descriptions. Dissimilar to the quantitative phase that sought to generalize the generativity findings, this qualitative research phase sought to richly describe the experience of NHRI students with generativity in the mentoring context so as to allow the readers to determine if the situation applies to them. The methods section and the findings section richly described the research participants and their NHRI experience so as to allow the readers to fully understand the context and trustworthiness of the results.

Triangulation. Typically, triangulation involves utilizing multiple forms of qualitative data (interviews, observations, documents, etc.) in order to validate findings. Since this phase only utilized interviews, triangulation of the interviews involved searching for common statements made by multiple participants and reviewing disconfirming statements as a means of placing boundaries around those confirmed themes.

Peer review. In an attempt to avoid significant bias, a peer review was solicited. Peer reviews are a validation strategy designed to increase the rigor and accuracy of a

study's findings. A fellow doctoral student at UNL served as the peer reviewer for the study. This reviewer was already familiar with the study and the study questions prior to the review. The researcher provided the reviewer with an audit trail of research results. First, the reviewer was given one respondent's transcript data that related to the phenomenon at study. The reviewer was asked to initially code the transcript as if she were the researcher. Next, significant statements that were extracted from the transcript data by the researcher were highlighted. The reviewer was asked to verify and/or challenge whether or not those statements captured the essence of each transcribed section. Last, the reviewer was presented with a list of the significant statements, their corresponding meaning units, and corresponding themes. Again, the reviewer was asked to verify and/or challenge the validity of the meaning units and corresponding themes.

Upon meeting with the reviewer, she indicated that the codes she identified were similar to the researcher's codes, just differing in semantics. For example, the peer reviewer identified codes such as, "relationships" and "intentional investment" in comparison to the researcher's codes of "friendship," "mentorship," and "friendship x mentorship." Furthermore, the peer reviewer confirmed that the significant statements identified by the researcher matched the significant statements she identified. She also validated the corresponding meaning units and themes. A copy of the form signed by the peer reviewer is located in Appendix G.

Ethical considerations. Several ethical considerations were made prior to, during, and after this study phase. As previously mentioned, the NHRI Graduate Assistant contacted each potential study participant in order to minimize coercion. Once the participant agreed to participate, the researcher explained the general purpose of the

research and gave the participant the choice of interview locations. Both interview locations were neutral locations; in other words, neither location was the researcher's office. Prior to the interviews, each participant was again apprised of the research purpose and was given the chance to review and sign an informed consent form. The informed consent form indicated the use of audio recording equipment. During the interview, each participant was informed and reassured of the "no right or wrong answer" rule. After the interview, each participant either chose or was assigned a pseudonym in order to safeguard anonymity and privacy. Furthermore, any names mentioned within the interviews were either removed or given another pseudonym.

Pilot interview. The first interviewee agreed to serve as a pilot interview. This respondent not only went through the interview protocol, but was also asked to provide feedback on the questions themselves. The pilot interviewee provided helpful recommendations regarding the interview questions. He indicated that some of the questions should be reformulated so as to solicit specific stories. As per his recommendations, several of the questions were reformulated so as to garner specific stories.

Phase 3: Interpretation of QUAN(qual) Results

Mixed methods data analysis procedures. While data from each phase were linked to data collection procedures in their corresponding phases, interpreted results from both the quantitative and qualitative phases were integrated in the discussion chapter (Chapter 5). In particular, the discussion chapter was organized by findings where descriptive quantitative results were explained and supported by qualitative themes. Through this integrated interpretation, the quantitative results were more richly

described by the qualitative interviews than interpretation of the quantitative results alone.

Mixed methods validity procedures. Onwuegbuzie and Johnson (2006) noted that integrating qualitative and quantitative data findings presents a complex validity issue. Since data were collected in sequential phases, it is possible that meta-inferences arose largely due to the sequence itself.

In order to better generalize findings to a larger population, sample integration was employed across phases. Data were collected from the same participants in all data collection phases. While Phase 2 had a smaller n than Phase 1, the participants in the second phase were selected from the participants in the first phase.

In addition to data being verified in the second phase by peer examination, interpretation of integrated results were also examined by outside, unbiased peers.

Utilizing interviews in addition to collecting quantitative data increased the validity of the findings, because it avoided conversion legitimation problems such as misleading counting, over-counting, and acontextual counting (Sandelowski, 2001, as cited in Onwuegbuzie & Johnson, 2006).

Utilizing a mixed worldview as explained in the philosophical foundations section increased the commensurability legitimation, because the findings were considered from a third, well-informed viewpoint rather than from two compromised, but differing worldviews largely associated with just qualitative or quantitative research.

The following chapter explicitly details the results from the current study's quantitative and qualitative data analyses. Chapter 4 reports results separately from the quantitative phase and the qualitative phase.

CHAPTER 4

Results

The purpose of this mixed methods study was to examine the impact of mentoring relationships on generativity in college students. Chapter 4 is organized to explicitly report the results from the quantitative phase and the qualitative phase. This chapter begins by reporting the results from the quantitative data analysis. The second section within this chapter reports the results from the qualitative data analysis.

Phase 1: Quantitative

The data analysis from the quantitative phase was used to answer the research question, *Are college students who are involved in a mentoring relationship more generative than their peers after controlling for age, gender, G.P.A. range, and college major?* Table 1 presents the variables at study in this phase.

Table 1

Quantitative Phase Variables

Independent Variable	Covariates	Dependent Variables
Group Membership	Age	LGS Subscale 1
Intervention group	Gender	LGS Subscale 2
College student leader control group	Major	LGS Subscale 3
General college student control group	GPA range	LGS Subscale 4
		LGS Subscale 5
		Total GBC Score
		Total Personal Strivings Score

The independent variable was the presence of a mentoring relationship. Study participants were classified into one of three treatment condition groups: (a) intervention group (NHRI student participants who mentored K – 12 students), (b) college student leader control group (college students who were involved in UNL leadership groups, but were not involved in a mentoring relationship), and (c) general college student control group (UNL students who were neither involved in a mentoring relationship nor in a campus leadership group). Being a leader and mentoring a younger person are both considered to be generative behaviors. Therefore, one could argue that being a campus leader could be a confounding influence on generativity, thereby reducing the influence of mentoring a younger person. To control for this confounding influence, the treatment condition of being a college student leader, but not involved in a mentoring relationship was added ("college student leader control group").

The dependent variables in the current study were the scores on the Loyola Generativity Scale (LGS) Subscale 1, LGS Subscale 2, LGS Subscale 3, LGS Subscale 4, LGS Subscale 5, the Total Generativity Behavior Checklist (GBC) score, and the Total Personal Strivings score. The covariates at study were year in school (age), gender, G.P.A. range, and college major. While only one of these covariates (gender) has a direct empirical relationship with generativity, the other covariates may be related to generativity based on previous research findings. With regard to gender, McAdams and de St. Aubin (1992) discovered from their study that young women are more highly generative than young men. Therefore, one might reasonably argue that gender could have a confounding influence on generativity.

With regard to G.P.A., McAdams (2001) noted in his summary analysis of generativity literature that education level is positively related to generativity. In other words, those who have higher educational attainment tend to have higher generativity levels. One could argue that those with higher G.P.A. levels will be more likely to attain a degree; therefore, the influence of G.P.A. range should be controlled.

While college major has not been explicitly studied in relationship to generativity, certain generative behaviors may likely be associated with particular college majors. For example, item 3 on the LGS states, "I think I would like the work of a teacher," and item 1 on the GBC states, "Taught somebody a skill." One could argue that students who are majoring in education, for example, may have higher generativity responses than engineering majors, considering that many education majors will likely become teachers and will engage in the process of teaching skills to others more so than engineering majors.

Lastly, with regard to age, the age difference between the subjects in the current study is minimal, considering that all of the students in the current study are undergraduate students. The results of Komives et al.'s (2005) leadership identity study, however, causes one to pause and consider the impact of age on generativity among college students. Komives et al. discovered that college students realize 'generativity' during advanced stages of their leadership identity. One might conclude from this finding that a college senior (in particular, a senior college student leader) may express a more generative leadership identity than a sophomore. Considering the potential influence of these aforementioned variables on generativity, the covariates of age, gender,

G.P.A. range, and college major were employed to reduce the within-group variation and to increase the power of the multivariate statistical analysis.

Since the current study sought to examine the influence of mentoring on generativity between three different groups and utilized multiple, related dependent variables as well as covariates, a multivariate analysis of covariance (MANCOVA) procedure seemed most appropriate for analytic examination. The multivariate analysis (as compared to multiple univariate analyses) accounts for the interrelationship between the dependent variables, therefore removing possible inflation of the Type I error rate (Barker & Barker, 1984). Furthermore, the use of covariates reduces the variability among subjects within each treatment condition and increases the ability of the statistical analysis to elucidate the actual influence of the independent variable (in this case, the presence of a mentoring relationship) on the dependent variable (in this case, multiple measures of generativity) (Keppel & Wickens, 2004).

Data screening. Data were entered, cleaned, and prepared for a MANCOVA analysis. First, an outlier analysis was conducted, followed by an analysis of normality. Next, an analysis of missing data was conducted and a single imputation procedure was utilized to fill in missing data points. A detailed description of each procedure is offered in the following sections.

Outlier analysis.

Univariate outliers. Data were first mined for outliers (data points that vary significantly from the data set) considering that multivariate analyses are sensitive to their presence. Each variable was converted into z-scores and z-scores greater than three standard deviations from the mean were examined for unusual response patterns or

incorrect data entry. Among all LGS Subscales (Subscales 1 – 5), only five outliers were discovered, and these five cases did not indicate an unusual response pattern (as in, the student responded with all 0's or all 3's) or incorrect data entry. Similarly, among the Total Personal Strivings scores, only two outliers were discovered, and these cases did not indicate an unusual response pattern or incorrect data entry. Among the Total GBC Scores, however, five outliers were discovered, and all five demonstrated an unusual response pattern. All five cases had a significant amount of "2" scores, indicating that these students performed most of the 50 behavioral items in the GBC more than two times during the previous two months. Some of the behaviors listed in the GBC would be highly unlikely for an undergraduate student to perform; therefore, scores of "2" should be highly suspect. For example, three of the five outlier cases responded with a score of "2" for the item, "Purchased a new car or major appliance." Considering the average college student budget, an undergraduate would not likely purchase two items of such magnitude within two months. Four of the five outlier cases responded with a score of "2" for the item, "Took in a pet." Given that most undergraduate students live in apartment-style housing or on-campus housing, taking in two pets within two months seems highly unlikely. Lastly, four of the five outlier cases responded with a score of "2" to *both* items, "Restored or rehabbed a house" and "Sewed or mended a garment." Given that most undergraduate students are in school at least part-time, it would be highly unlikely for a college student to have the time for both house restoration and sewing within the course of two months. Furthermore, the skill sets required for house restoration and sewing are vastly different. A response of "2" for both items should be considered suspect. Instead, one could reasonably argue that these five respondents

likely grew tired of the instruments and placed a response of "2" by default. Therefore, given the suspect response patterns of these five outliers, these cases were treated as missing data for the GBC.

Multivariate outliers. Multivariate outliers are cases in which an unusual combination of values exists for multiple independent variables. Mahalonobis D^2 (a multidimensional version of the z-score) is typically calculated to measure the distance of each case's multidimensional independent variable mean against the multidimensional mean (centroid) of the entire distribution. Since the current study utilized only one categorical independent variable, the test for multivariate outliers was unnecessary.

Normality. Skewness and kurtosis statistics as well as histograms were examined for each variable within each treatment group to assess normality. Normal curves have skewness and kurtosis values of zero; however, when converted to *z* scores (by dividing the skewness or kurtosis value by its standard error), values between +/- 3.33 for skewness and kurtosis are considered acceptable (Tabachnick & Fidell, 2007). Table 2 (see p. 86) highlights the skewness and kurtosis *z* scores for each variable within each group. For the intervention group, LGS Subscale 4 skewness and kurtosis *z* scores, LGS Subscale 5 skewness *z* score, and the Total GBC Score kurtosis *z* score were outside of the suggested range. For the general college student control group, the LGS Subscale 4 skewness *z* score was outside of the acceptable range. The remainder of the variables within each group had skewness and kurtosis *z* scores within the acceptable range. Tabachnick and Fidell (2007) indicated that the univariate *F* is robust to modest violations of normality within large samples due to the central limit theorem, which suggests that the sampling distribution of means approaches normality even when raw

data scores do not. Furthermore, analysis of the histograms for each variable within each group indicated normal distributions.

Table 2

Skewness and Kurtosis Z Scores for Each Variable Within Each Group

	Intervention Group		College Student Leader Control Group		General College Student Control Group	
DV	Skewness	Kurtosis	Skewness	Kurtosis	Skewness	Kurtosis
LGS Subscale 1	-1.58	-0.46	-0.68	-0.06	-1.23	-1.23
LGS Subscale 2	-1.31	0.76	-0.60	-1.41	-0.07	1.73
LGS Subscale 3	-0.03	-1.26	-1.15	0.44	0.08	1.56
LGS Subscale 4	-3.55*	3.45*	-0.65	-1.04	-3.57	0.98
LGS Subscale 5	-3.45*	3.10	-2.86	1.80	-2.03	-0.40
Total GBC	2.31	4.49*	-0.42	-0.17	4.16*	2.47
Total Personal Strivings	1.98	2.56	-0.09	-0.44	1.44	-0.62

Note. These values are converted *z* scores, not the actual skewness and kurtosis statistics.
*p < .05

Missing data. As previously mentioned, each respondent received a score for each LGS subscale, a total LGS score, a total GBC score, and a total Personal Strivings score. These data were entered into SPSS v. 19 and analyzed for missing data. Overall, item nonresponse was minimal. The item nonresponse rate for the LGS, GBC, demographic form, and Personal Strivings items 1 – 5 was less than five percent. The

item nonresponse rate for the remaining Personal Strivings items 6 – 10 was between five percent and 12 percent.

Item nonresponse can be handled one of three ways: (a) listwise or pairwise deletion (deleting cases that have any missing values), (b) imputation (assigning plausible values to missing data points), or (c) weighting class adjustment (weighting those that have complete data sets higher) (Heeringa, West, & Berglund, 2010). Typically, listwise deletion is recommended for item nonresponse rates that are less than five percent. Item nonresponse, however, in the case of generativity, can actually be indicative of less generative behavior. Student respondents, for example, may have chosen to not complete Personal Strivings items 6 – 10, because they had grown tired of the instruments and wanted to stop. Other student respondents may have also grown tired of the instruments and wanted to stop at the same juncture, but chose to complete the remaining items due to a desire to be helpful (a generative motivation). Therefore, utilizing listwise deletion might bias the estimate, inadvertently inflating the generativity levels among the groups. The weighting class adjustment option would also have offered the same problem by weighting those cases with complete data sets (perhaps indicative of higher generativity) higher. Furthermore, weighting class adjustments are recommended for monotonic patterns of item-missing data (which involves nonresponse to entire survey phases) (p. 341). Therefore, the imputation approach seemed most appropriate for handling missing data in the current study. Imputation involves utilizing data from available cases to provide a plausible value for missing cases and is recommended for item-missing data that involves failure to respond to a few items within a particular survey phase (p. 341).

Two major imputation procedures are most commonly used: single imputation and multiple imputation. Single imputation procedures create one new data set with missing data points filled in. Multiple imputation procedures create multiple data sets with missing data points filled in, with each data set containing different filled-in values for the missing data points. The multiple data sets are then "pooled" during the analysis procedure. Multiple imputation is considered in the academic community to be the more rigorous option; however, at the time the current study was conducted, the MANCOVA statistical procedure was unable to pool multiple data sets in any of the major statistics software packages (SAS, SPSS, and STATA). Therefore, the current study utilized a single imputation procedure.

SPSS v. 19 offered five single imputation procedures: (a) series mean, which involves replacing missing values with the mean of the entire series, (b) mean of nearby points, which involves replacing missing values with the mean of valid surrounding data points, (c) median of nearby points, which involves the same procedure as (b) except using the median, (d) linear interpolation, which involves using the last valid value before and after the missing data point to determine a linear trend to predict the value of the missing data point, and (e) linear trend at point, which involves predicting the missing value by creating a linear regression model of the observed values. All single imputation data sets as well as the original data were tested and yielded similar MANCOVA results. Utilizing regression, however, is the most sophisticated method for the single imputation procedures offered by SPSS (Tabachnick & Fidell, 2007); therefore, "linear trend at point" results are shown in this chapter.

Participant information. Overall, 273 undergraduate students participated in the study. The intervention group had 80 participants, the college student leader control group had 45 participants, and the general college student control group had 148 participants. With regard to age, the percentages of sophomore, junior, and senior participants (31.5%, 28.6%, and 38.5%, respectively) were fairly equal. With regard to gender, there were more female participants (57.1%) than male participants (42.1%). With regard to G.P.A range, the highest represented category was the 3.5 – 4.0 G.P.A range (49.5%), followed by the 3.0 – 3.49 range (35.9%) and the 2.5 – 2.99 range (11.0%). The least represented category was the 2.0 – 2.49 range (3.3%). With regard to major, the highest represented category was the education and human sciences majors (31.5%), followed by the arts and sciences majors (22.3%), business administration majors (16.1%), engineering majors (5.5%), agricultural sciences and natural resources majors (5.9%), journalism and mass communication majors (5.5%), undeclared majors (3.7%), fine and performing arts majors (3.3%), public affairs and community service majors (2.6%), and nursing majors (1.5%). The least represented category was architecture majors (1.1%).

MANCOVA.

MANCOVA assumptions. The MANCOVA statistical analysis requires several assumptions to be met in order for the data results to be appropriately interpreted. First, the MANCOVA analysis assumes that the error terms are independent across observations and across the independent variables. This assumption is valid for the current study, because each group (intervention group, college student leader control group, and general college student control group) was drawn from different populations.

Intervention group students who were also involved in the college student leadership groups and/or also enrolled in the sampled summer classes were asked to not complete the measures again. Similarly, students who were sampled in the college student leader control group who were also enrolled in the sampled summer classes were asked to not complete the measures again. Furthermore, data was gathered from each respondent only once and in one sitting—data were not collected from the respondents multiple times.

Second, the MANCOVA analysis assumes homogeneity of variance (variances are the same for each dependent variable across groups) and homogeneity of variance-covariance matrices (variance-covariance matrices are the same for each dependent variable across groups). The Levene's Test of Equality of Error Variances was employed in SPSS to test the homogeneity of variance assumption. The F statistics for LGS Subscale 1, $F(2, 270) = 7.108$, LGS Subscale 2, $F(2, 270) = 3.323$, LGS Subscale 3, $F(2, 270) = 9.516$, and the Total GBC score, $F(2, 270) = 3.517$, were all significant at the $p < .05$ level, indicating a violation of this assumption. The F statistics for the LGS Subscale 4, $F(2, 270) = 1.283$, LGS Subscale 5, $F(2, 270) = 1.701$, and the Total Personal Strivings score, $F(2, 270) = .532$ were not significant at the $p < .05$ level, indicating that the error variances were equal across groups for these variables. Failure to meet the homogeneity of variance assumption is not fatal to MANCOVA, which is relatively robust to such violations. When violations occur, however, the researcher is encouraged to conduct F_{max} test for the variables in question. The F_{max} test divides the variance of the largest sample cell by the variance of the smallest sample cell. If the F_{max} value is below 10, then the homogeneity of variance assumption has been met (Tabachnick & Fidell, 2007). F_{max} statistics were calculated for the LGS Subscale 1, LGS Subscale 2, LGS Subscale 3, and

Total GBC variables. All F_{max} statistics fell below the 10 threshold. Table 3 below displays the F_{max} statistics for the variables in question.

Table 3

F_{max} Statistics for Variables That Violated Levene's Test

Variable	F_{max}
LGS Subscale 1	2.01
LGS Subscale 2	1.73
LGS Subscale 3	2.58
Total GBC Score	1.99

Note. All F_{max} statistics are below the threshold value of 10.

The Box's Test of Equality of Covariance Matrices was employed in SPSS to test the homogeneity of variance-covariance matrices assumption. Box's Test assesses the null hypothesis that all observed covariance matrices of the dependent variables are equal across groups. The test was not statistically significant at the recommended $p < .001$ level (p=.029) (Tabachnick & Fidell, 2007), indicating that the covariance matrices were, indeed, equal across groups.

A third MANCOVA analysis assumption is multivariate normality. As previously mentioned, skewness and kurtosis statistics as well as histograms were examined for each variable within each treatment group to assess normality. A few modest violations occurred; however histogram analyses revealed normal data distribution. Tabachnick and Fidell (2007) indicated that the univariate F is robust to modest violations of normality within large samples due to the central limit theorem.

A fourth MANCOVA analysis assumption is linear relationships among all pairs of dependent variables, all pairs of covariates, and all dependent variable-covariate

relationships. Tabachnick and Fidell (2007) suggested examining bivariate scatter plots of only those variables whose skewness statistics were outside of the accepted range for linearity testing. LGS Subscale 4, LGS Subscale 5, and the Total GBC variables were the only variables that demonstrated skewness statistics outside of the accepted range. Bivariate scatter plots were tested for the LGS Subscale 4, LGS Subscale 5, and the Total GBC variables. These variables did not demonstrate a curvilinear relationship with any other variable.

Overall and step-down homogeneity of regression tests are required for a MANCOVA. This test examines whether or not the relationship (regression slope) between the covariates and the dependent variables is the same across groups. Practically speaking, this test involves including each independent variable-covariate interaction in the MANCOVA analysis as well as the overall interaction of the independent variable and all of the covariates. For the variables in the current study, none of the interactions between the independent variable and each of the covariates was statistically significant. Furthermore, the overall interaction between the independent variable and all of the covariates was not significant at the $p < .05$ level. Therefore, the homogeneity of regression assumption was satisfied. Table 4 (see p. 93) highlights the multivariate tests for each of the IV-covariate interactions as well as the overall interaction.

The final MANCOVA assumptions include reliability of covariates and absence of multicollinearity and singularity (Tabachnick & Fidell, 2007). Reliability of covariates assumes that the covariates are measured without error. Tabachnick and Fidell pointed out that variables such as gender and age are easily justified to meet this assumption since they can be measured with perfect reliability. Considering that the

covariates at study are strictly demographic (gender, age, college major and G.P.A range) and not attitudinal, one could easily argue that these covariates are reliable for the same justification.

Table 4

Homogeneity of Regression Test

	Wilk's Lambda	*p*
Group x Age	0.96	0.64
Group x Gender	0.96	0.70
Group x GPA	0.93	0.22
Group x Major	0.95	0.45
Overall Interaction	0.91	0.28

With regard to absence of multicollinearity (highly correlated variables) and singularity (one of the variables is a combination of two or more variables), correlation analyses of all dependent variables in the current study revealed modest to small correlations, well below the .90 upper limit recommendation (Tabachnick & Fidell, 2007). Furthermore, correlation analyses of all covariates demonstrated small correlations, again well below the .90 recommendation. Tables 5 and 6 (see p. 94) highlight these correlations.

To meet the singularity assumption, the Total LGS score was removed from the analysis since the sum of the five LGS subscales equaled the Total LGS score. The five LGS subscales, the Total GBC score, and the Total Personal Strivings score are all

independent of each other. Therefore, multicollinearity and singularity assumptions were satisfied.

Table 5

Dependent Variable Intercorrelations

Dependent Variable	1	2	3	4	5	6	7
1. LGS Subscale 1	--	.41	.50	.37	.41	.37	.22
2. LGS Subscale 2	.41	--	.67	.31	.39	.42	.18
3. LGS Subscale 3	.50	.67	--	.37	.38	.42	.21
4. LGS Subscale 4	.37	.31	.37	--	.27	.38	-.09
5. LGS Subscale 5	.41	.39	.38	.27	--	.33	.17
6. Total GBC	.37	.42	.42	.38	.33	--	.11
7. Total Personal Strivings	.22	.18	.21	-.09	.17	.11	--

Note. All values are below the 0.9 threshold.

Table 6

Covariate Intercorrelations

Variable	1	2	3	4
1. Age	--	.06	-.07	-.23
2. Gender	.06	--	.16	-.07
3. GPA Range	-.07	.16	--	.04
4. Major	-.23	-.07	.04	--

Note. All values are below the 0.9 threshold.

Descriptive statistics. Table 7 (see p. 95) shows the means and standard deviations for each of the dependent variables within each group.

Table 7

Descriptive Statistics for Each Dependent Variable Within Each Group

	Intervention Group (n=80)	College Student Leader Control Group (n=45)	General College Student Control Group (n=148)
Dependent Variable	M (SD)	M (SD)	M (SD)
LGS Subscale 1	10.10 (1.37)	8.82 (1.89)	8.56 (1.94)
LGS Subscale 2	9.45 (1.59)	9.02 (1.99)	8.01 (2.09)
LGS Subscale 3	13.66 (1.86)	12.69 (2.51)	11.75 (2.99)
LGS Subscale 4	4.86 (0.97)	4.83 (0.89)	4.78 (1.07)
LGS Subscale 5	9.39 (1.52)	9.2 (1.88)	8.62 (1.89)
Total GBC	34.86 (8.30)	34.08 (9.82)	28.63 (11.71)
Total Personal Strivings	4.84 (1.82)	3.59 (1.49)	3.36 (1.65)

Multivariate test. The first test in the MANCOVA analysis examined the effect of group membership on *all* of the dependent variables combined. Four different multivariate tests were conducted: (a) Pillai's Trace (the most conservative test, which is recommended when the Box's test has been violated), (b) Wilks' Lambda (best to use with more than two groups), (c) Hotelling's Trace (commonly used with only two groups), and (d) Roy's Largest Root. For the current study, all four multivariate tests indicated that group membership had a significant effect on generativity even after controlling for the influence of age, gender, G.P.A range, and major. In other words, students' generativity levels were indeed influenced by whether or not they were in the intervention group, the college student leader control group, or the general college student control group.

Since the Box's test was not violated, the Wilks' Lambda statistic is the most widely recommended statistic to report. The Wilks' Lambda statistic revealed a statistically significant difference between the three groups (intervention group, college student leader control group, and general college student control group) on generativity, $F(3, 520) = 5.007$, $p < .0005$; Wilk's $\lambda = 0.777$, partial $\varepsilon^2 = .119$. The partial eta squared value of 0.119 indicates that approximately 12 percent of the variance in generativity among the respondents could be explained by their group membership after controlling for age, gender, G.P.A range, and major. This partial eta squared value represents the effect size and is considered to be a medium effect size (>.06), although one could argue that this statistic is approaching a large effect size (>.14). All four multivariate tests indicated a strong observed power of 1.0.

Among the covariates, the only covariate to demonstrate a main effect was gender, $F(3,260) = 4.93$, $p < .001$. The partial eta squared value (.117) indicated a medium effect size and the gender covariate main effect test also demonstrated strong power (.996). This finding is consistent with McAdams and de St.Aubin's (1992) study result that, among the young adult cohort, female young adults demonstrated higher generativity than male young adults.

Tests of between-subject effects. Since the multivariate test was significant, further tests were needed. Multiple univariate ANOVA tests were employed to determine the effect of group membership on each of the generativity variables. Since multiple ANOVAs were utilized, a Bonferroni correction of a $p < .025$ significance level was utilized.

Univariate ANOVA tests revealed that group membership had a significant effect on the LGS Subscale 1, $F(2, 266) = 14.306$, $p < .0005$, partial $\varepsilon^2 = .097$, LGS Subscale 2, $F(2, 266) = 10.613$, $p < .0005$, partial $\varepsilon^2 = .074$, LGS Subscale 3, $F(2, 266) = 12.385$, $p < .0005$, partial $\varepsilon^2 = .085$, Total GBC Score, $F(2, 266) = 7.172$, $p = .001$, partial $\varepsilon^2 = .051$, and Total Personal Strivings score, $F(2, 266) = 13.159$, $p < .0005$, partial $\varepsilon^2 = .090$. These statistics indicate that generativity levels for LGS Subscales 1 – 3, the Generativity Behavior Checklist (GBC), and the Personal Strivings measure were determined by whether or not a respondent was in the intervention group, the college student leader control group, or the general college student control group. Observed power levels for all of the aforementioned ANOVA tests were above 0.9. Univariate effects of group membership on LGS Subscales 4 and 5 were not significant at the $p < .025$ level.

Pairwise comparisons. Considering the significant omnibus F statistics for the LGS Subscales 1 – 3, Total GBC score, and Total Personal Strivings score, pairwise comparison tests were employed for these variables to determine specifically which groups differed significantly from each other. Since multiple pairwise comparisons were employed, a Bonferroni adjustment on the alpha level was used.

LGS subscale 1: Passing on knowledge to the next generation. Mean scores for LGS Subscale 1 were significantly different between the intervention group and the college student leader control group ($p = .001$), and between the intervention group and the general college student control group ($p < .0005$), but not between the college student leader control group and the general college student control group ($p = 1.0$). Figure 7 (see p. 98) graphically depicts these differences. Note that the estimated marginal means

of each group are plotted. The marginal means are the group means that are adjusted to remove the influence of the covariates.

LGS subscale 2: Making significant contributions for the betterment of one's community. Mean scores for LGS Subscale 2 were significantly different between the intervention group and the general college student control group ($p < .0005$), and between the college student leader group and the general college student control group ($p = .013$), but not between the intervention group and the college student leader control group ($p = .904$). Figure 8 (see p. 99) graphically depicts these differences. Note again that the estimated marginal means of each group are plotted.

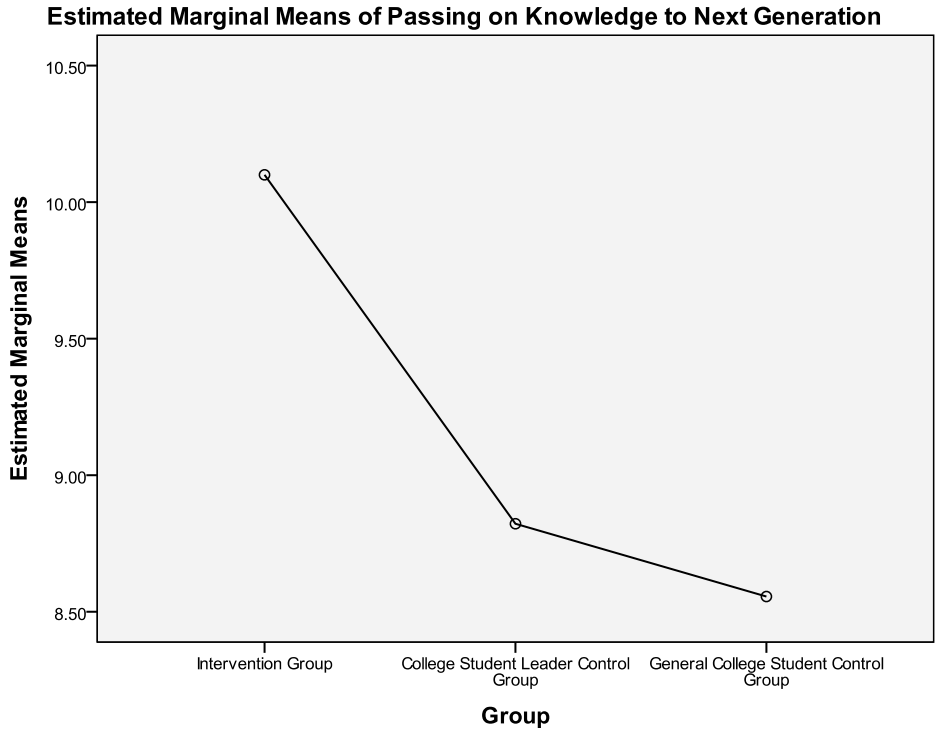

Figure 7. Profile plot for LGS subscale 1.

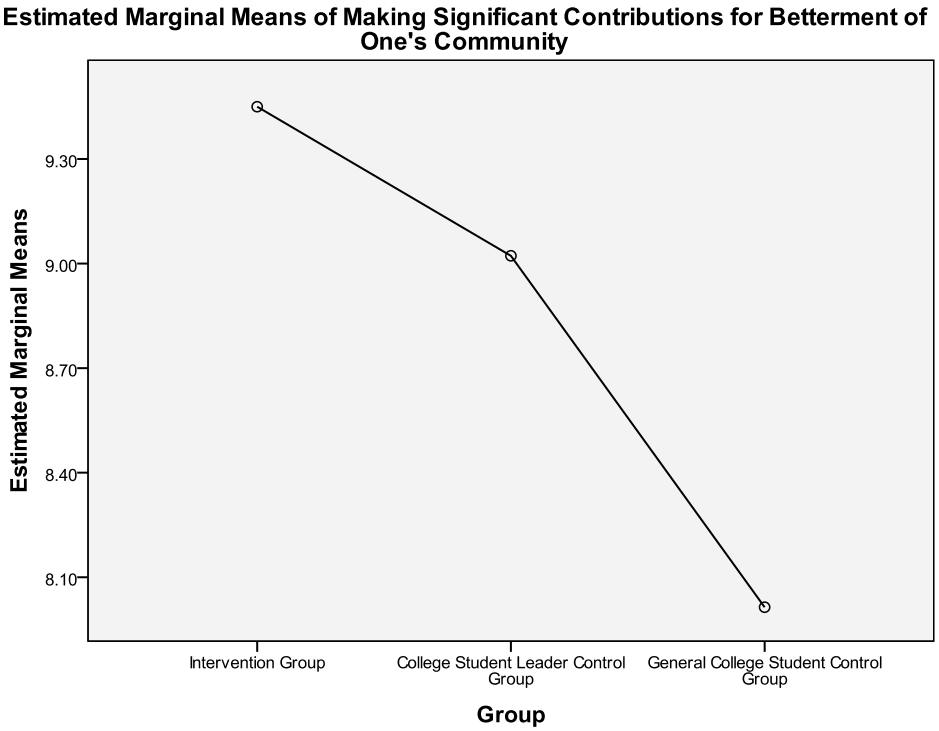

Figure 8. Profile plot for LGS subscale 2.

LGS subscale 3: Doing things that will have an enduring legacy. Mean scores for LGS Subscale 3 were significantly different between the intervention group and the general college student control group ($p < .0005$), and between the college student leader control group and the general college student control group ($p = .041$), but not between the intervention group and the college student leader control group ($p = .202$). Figure 9 (see p. 100) graphically depicts these differences. Note again that the estimated marginal means of each group are plotted.

Total GBC score. Mean scores for the Total GBC Score were significantly different between the intervention group and the general college student control group ($p = .001$), and between the college student leader control group and the general college student control group ($p = .019$), but not between the intervention group and the college

student leader control group (p = 1.0). Figure 10 (see p. 101) graphically depicts these differences. Note again that the estimated marginal means of each group are plotted.

Total personal strivings score. Mean scores for the Total Personal Strivings Score were significantly different between the intervention group and the college student leader control group (p = .001), and between the intervention group and the general college student control group (p < .0005), but not between the college student leader control group and the general college student control group (p = 1.0). Figure 11 (see p. 101) graphically depicts these differences. Note again that the estimated marginal means of each group are plotted.

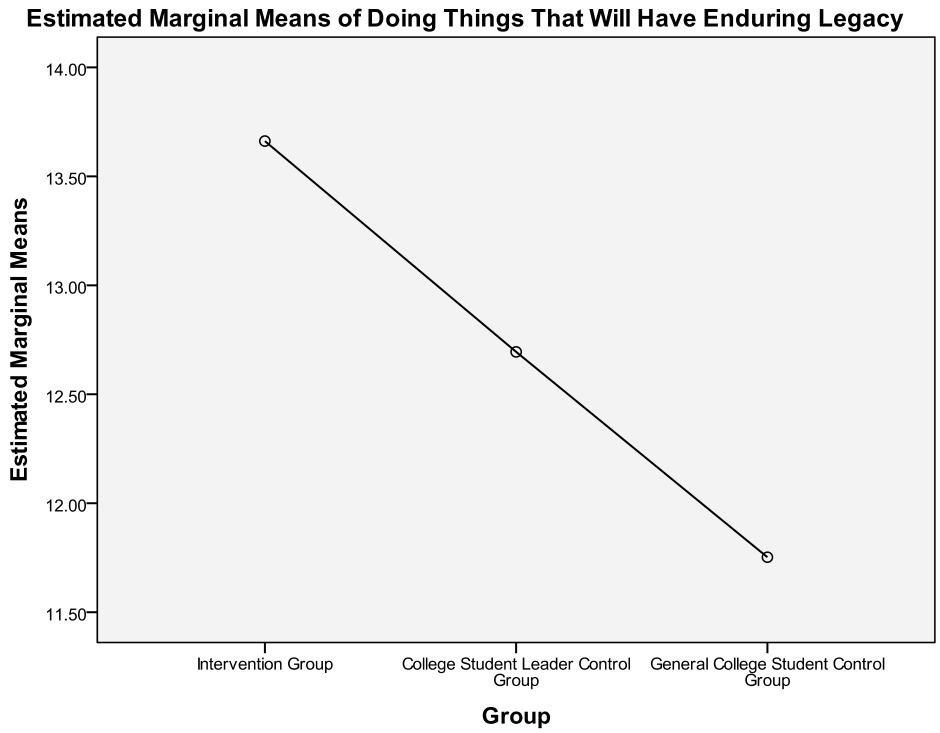

Figure 9. Profile plot for LGS subscale 3.

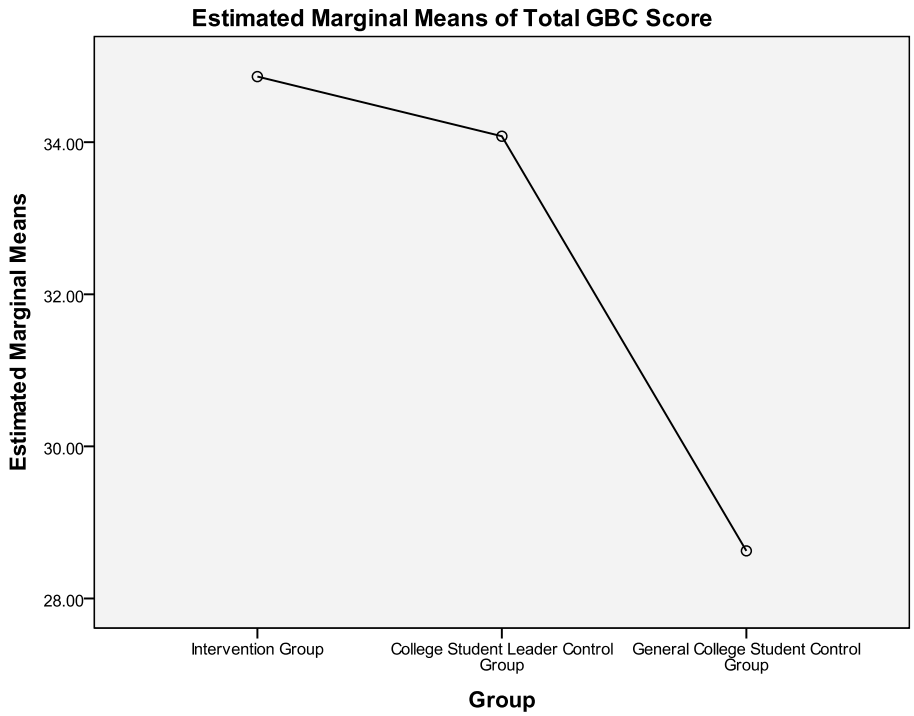

Figure 10. Profile plot for the total GBC score.

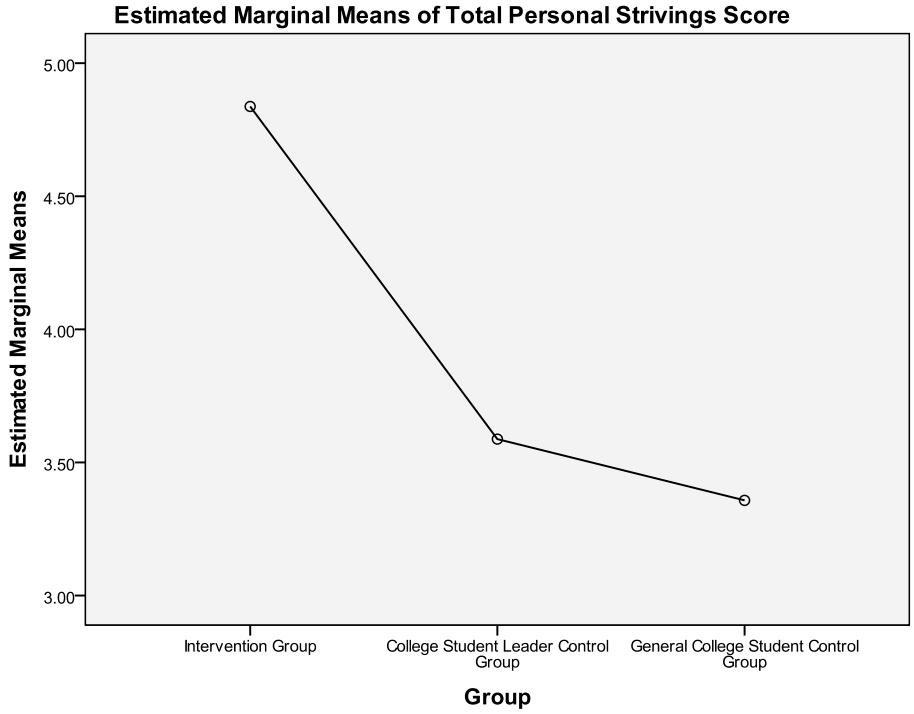

Figure 11. Profile plot for the total personal strivings score.

MANOVA. Since the covariates in the current study are not typically controlled for in generativity research, a MANOVA analysis was also conducted on the data using the same independent variable (group membership) and the same dependent variables (LGS Subscales 1 – 5, Total GBC score, and Total Personal Strivings score).

MANOVA assumptions. MANOVA and MANCOVA have nearly identical assumptions. The MANOVA actually has fewer assumptions than the MANCOVA; therefore, since the data at study met the MANCOVA assumptions, the data also met the MANOVA assumptions.

Descriptive statistics. The descriptive statistics for the MANOVA analysis were exactly the same as the MANCOVA analysis (see Table 7 on p. 95).

Multivariate test. The first test in the MANOVA analysis examined the effect of group membership on *all* of the dependent variables combined. All four multivariate tests indicated that group membership had a significant effect on generativity. In other words, students' generativity levels were indeed influenced by whether or not they were in the intervention group, college student leader control group, or the general college student control group.

Since the Box's test was not violated, the Wilks' Lambda statistic will be reported. The Wilks' Lambda statistic revealed a statistically significant difference between the three groups (intervention group, college student leader control group, and general college student control group) on generativity, $F(3, 528) = 6.695$, $p < .0005$; Wilk's $\lambda = 0.721$, partial $\varepsilon^2 = .151$. The partial eta squared value of 0.151 indicates that approximately 15 percent of the variance in generativity among the respondents could be explained by their group membership after controlling for age, gender, G.P.A range, and

major. This partial eta squared value represents the effect size and is considered to be a large effect size (>.14). All four multivariate tests indicated a strong observed power of 1.0.

Levene's test of equality of error variances. Prior to the univariate ANOVA effects tests (tests of between-subjects effects), the Levene's Test of Equality of Error Variances test was conducted to examine whether or not dependent variable error variances were equal across groups. The F statistics for LGS Subscale 1, $F(2, 270) = 6.395$, LGS Subscale 3, $F(2, 270) = 9.333$, and the Total GBC score, $F(2, 270) = 3.853$ were all significant at the $p < .05$ level, indicating a violation of this assumption. The F statistics for the LGS Subscale 2, $F(2, 270) = 2.963$, LGS Subscale 4, $F(2, 270) = 2.049$, LGS Subscale 5, $F(2, 270) = 2.626$, and the Total Personal Strivings score, $F(2, 270) = .325$ were not significant at the $p < .05$ level, indicating that the error variances were equal across groups for these variables. Failure to meet the homogeneity of variance assumption is not fatal to ANOVA, which is relatively robust to such violations. Furthermore, researchers are merely encouraged to use the Games-Howell statistics during post-hoc comparisons when violations occur.

Tests of between-subject effects. Since the multivariate test was significant, further tests were needed. Multiple univariate ANOVA tests were employed to determine the effect of group membership on each of the generativity variables. Since multiple ANOVAs were utilized, a Bonferroni correction of a $p < .025$ significance level was utilized.

Univariate ANOVA tests revealed that group membership had a significant effect on the LGS Subscale 1, $F(2, 270) = 19.940$, $p < .0005$, partial $\varepsilon^2 = .129$, LGS Subscale 2,

$F(2, 270) = 15.480$, $p < .0005$, partial $\varepsilon^2 = .103$, LGS Subscale 3, $F(2, 270) = 13.930$, $p < .0005$, partial $\varepsilon^2 = .094$, LGS Subscale 5, $F(2, 270) = 5.398$, $p = .005$, partial $\varepsilon^2 = .038$, Total GBC Score, $F(2, 270) = 10.949$, $p < .0005$, partial $\varepsilon^2 = .075$, and Total Personal Strivings score, $F(2, 270) = 20.739$, $p < .0005$, partial $\varepsilon^2 = .133$. These statistics indicate that generativity levels for LGS Subscales 1, 2, 3, and 5, the Generativity Behavior Checklist, and the Personal Strivings measure were determined by whether or not a respondent was in the intervention group, the college student leader control group, or the general college student control group. Observed power levels for all of the aforementioned ANOVA tests were above 0.8. The univariate effect of group membership on LGS Subscale 4 was not significant at the $p < .025$ level.

Post-hoc tests. Considering the significant omnibus F statistics for the LGS Subscales 1, 2, 3, and 5, the Total GBC score, and the Personal Strivings score, pairwise comparison tests were employed for these variables to determine specifically which groups differed significantly from each other. Tukey HSD and Games-Howell post-hoc tests were used in examining pairwise comparisons to determine the practical significance of the findings.

LGS subscale 1: Passing on knowledge to the next generation. Since the LGS Subscale 1 failed the Levene's test, the Games-Howell post-hoc test was utilized. Mean LGS Subscale 1 scores were significantly different between the intervention group and the college student leader control group ($p < .0005$), and between the intervention group and the general college student control group ($p < .0005$), but not between the college student leader control group and the general college student control group ($p = .689$). Figure 12 (see p. 105) graphically depicts these differences. Note that the estimated

marginal means of each group are plotted. Since this MANOVA analysis did not involve covariates, the marginal means are the same as the group means.

LGS subscale 2: Making a significant contribution for the betterment of one's community. Since the LGS Subscale 2 passed the Levene's test, the Tukey HSD post-hoc test was utilized. Mean LGS Subscale 2 scores were significantly different between the intervention group and the general college student control group ($p < .0005$), and between the college student leader control group and the general college student control group ($p = .007$), but not between the intervention group and the college student leader control group ($p = .465$). Figure 13 (see p. 106) graphically depicts these differences.

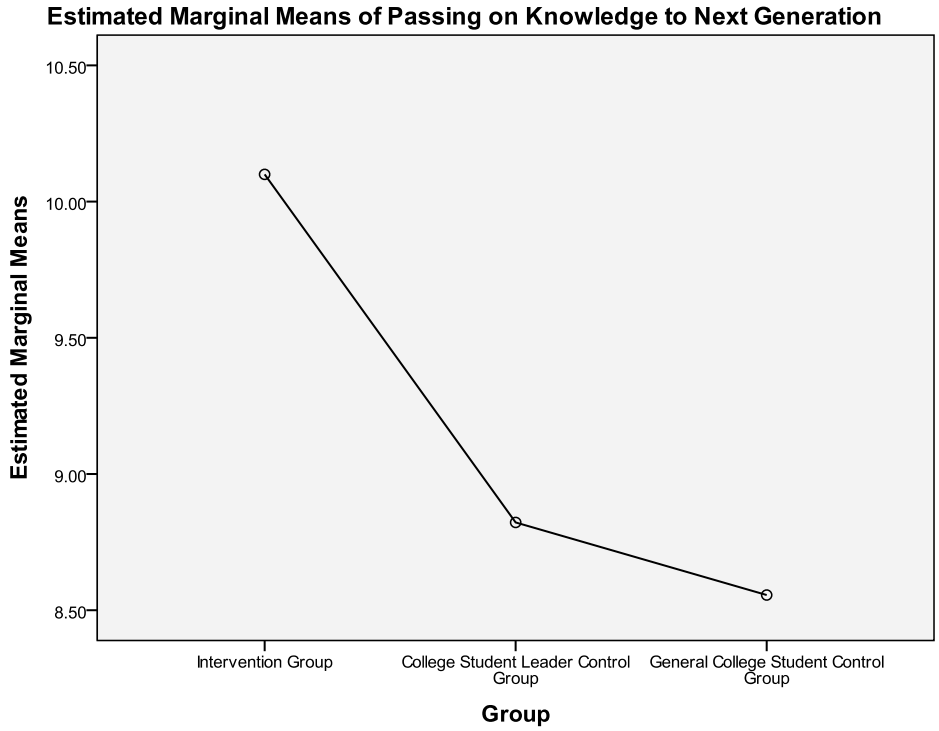

Figure 12. Profile plot of LGS subscale 1 (MANOVA).

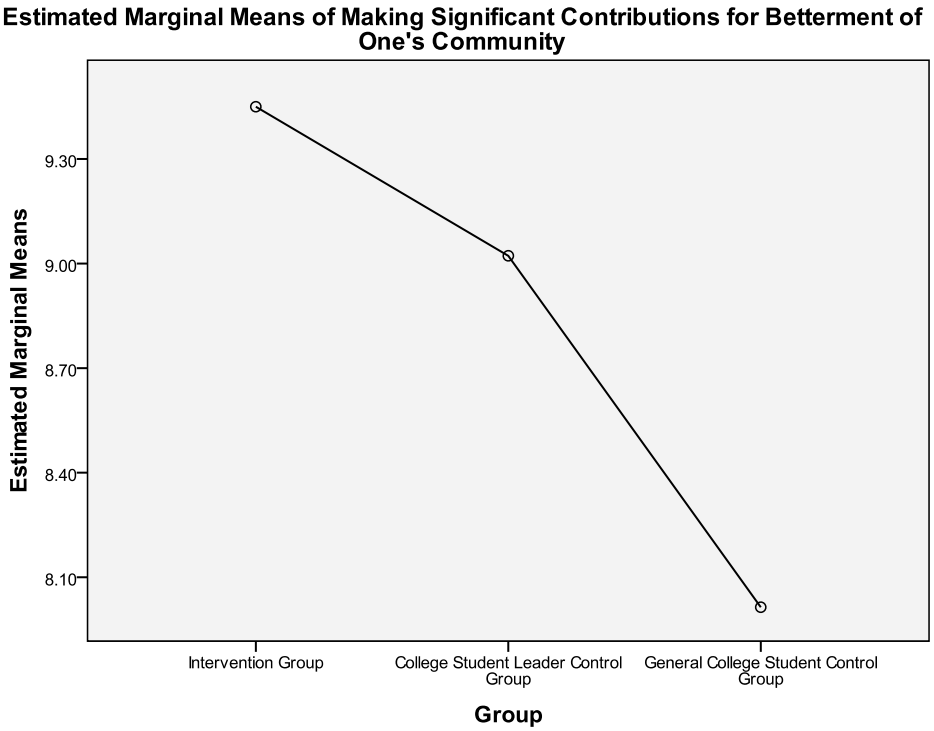

Figure 13. Profile plot for LGS subscale 2 (MANOVA).

LGS subscale 3: Doing things that will have an enduring legacy. Since the LGS Subscale 3 failed the Levene's test, the Games-Howell post-hoc test was utilized. Mean LGS Subscale 3 scores were significantly different between the intervention group and the general college student control group ($p < .0005$), but not significantly different between the intervention group and the college student leader control group ($p = .068$), and not between the college student leader control group and the general college student control group ($p = .095$). Figure 14 (see p. 107) graphically depicts these differences.

LGS subscale 5: Caring for and taking responsibility for other people. Since the LGS Subscale 5 passed the Levene's test, the Tukey HSD post-hoc test was utilized. Mean LGS Subscale 5 scores were significantly different between the intervention group and the general college student control group ($p = .006$), but not between the intervention

group and the college student leader control group (p = .840), and not between the college student leader control group and the general college student control group (p = .136). Figure 15 (see p. 108) graphically depicts these differences.

Total GBC score. Since the Total GBC score failed the Levene's test, the Games-Howell post-hoc test was utilized. Mean Total GBC scores were significantly different between the intervention group and the general college student control group (p < .0005), and between the college student leader control group and the general college student control group (p = .007), but not between the intervention group and the college student leader control group (p = .894). Figure 16 (see p. 108) graphically depicts these differences.

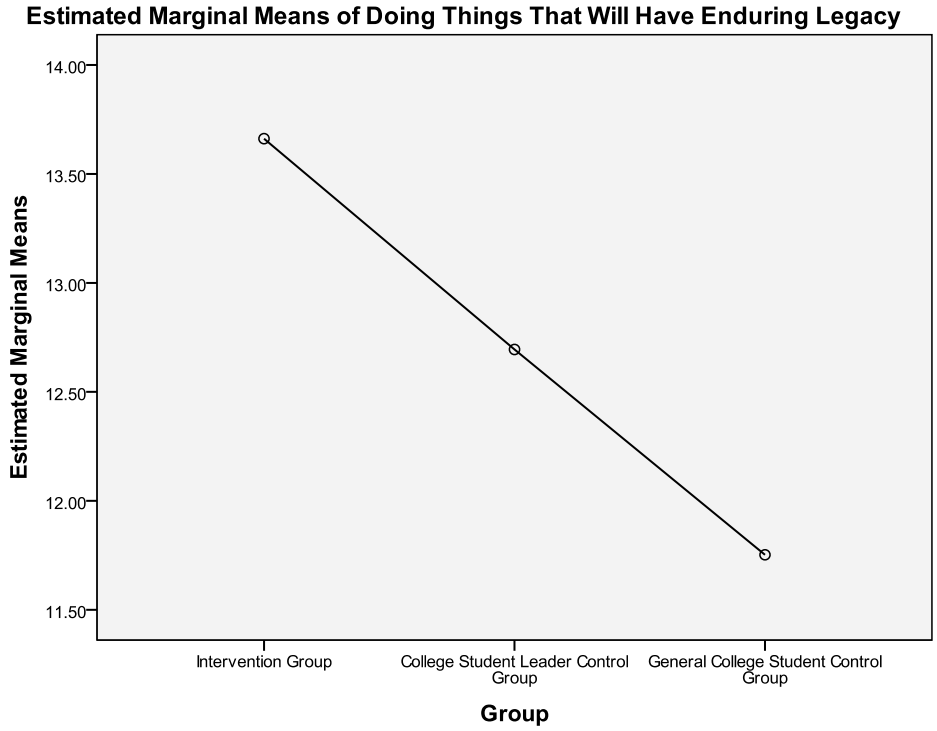

Figure 14. Profile plot of LGS subscale 3 (MANOVA).

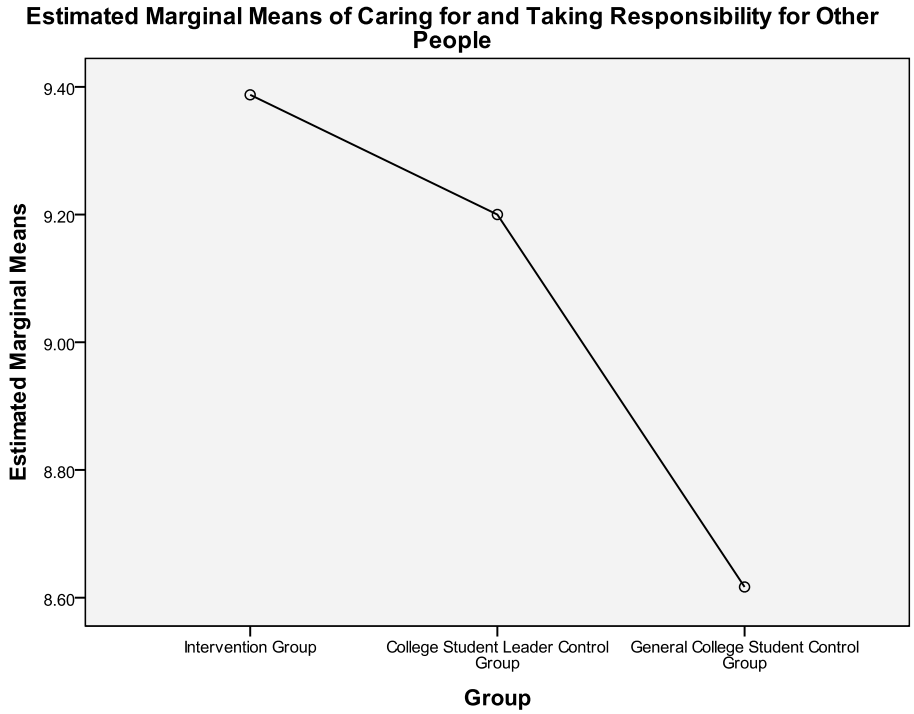

Figure 15. Profile plot for LGS subscale 5 (MANOVA).

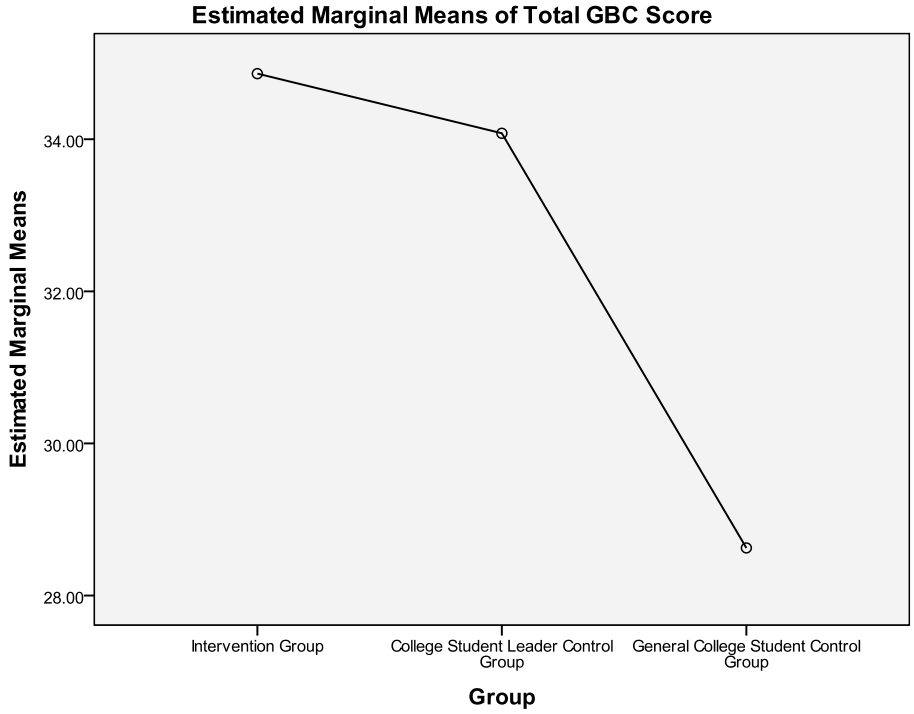

Figure 16. Profile plot of the total GBC score (MANOVA).

Total personal strivings score. Since the Total Personal Strivings score passed the Levene's test, the Tukey HSD post-hoc test was utilized. Mean Total Personal Strivings scores were significantly different between the intervention group and the college student leader control group ($p < .0005$), and between the intervention group and the general college student control group ($p < .0005$), but not between the college student leader control group and the general college student control group ($p = .700$). Figure 17 below graphically depicts these differences.

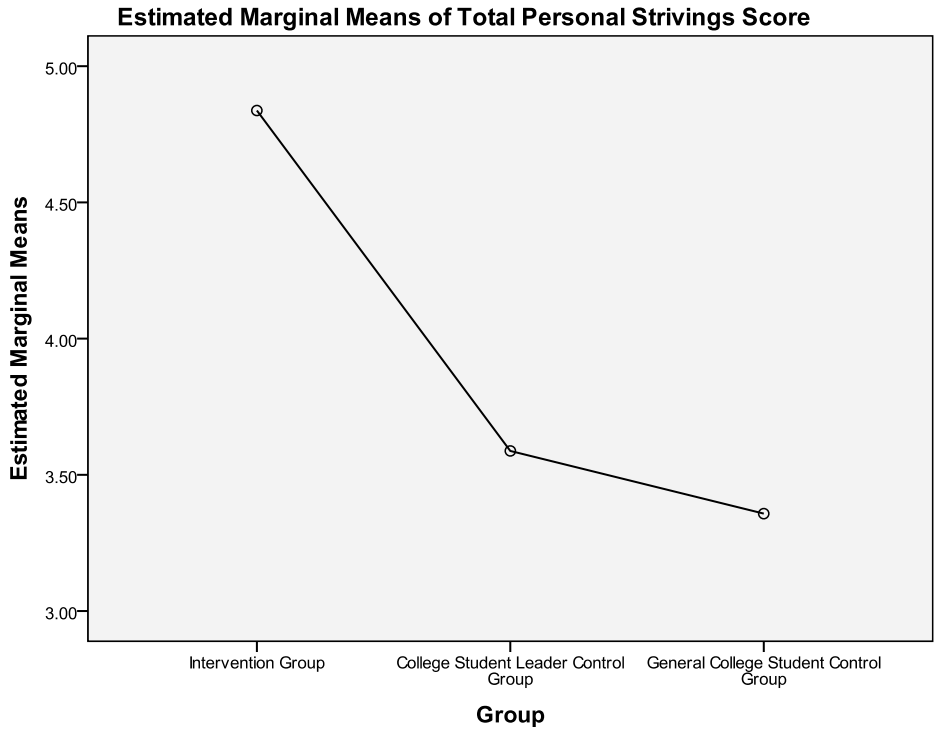

Figure 17. Profile plot of the total personal strivings scores (MANOVA).

Summary of results. Multivariate tests for the MANCOVA analysis indicated that generativity levels were indeed influenced by group membership after controlling for the confounding influences of age, gender, G.P.A range, and major. Follow-up univariate ANOVA tests (utilizing a Bonferroni adjustment) revealed that generativity levels for

LGS Subscales 1 – 3, the Generativity Behavior Checklist, and the Personal Strivings measure were determined by whether or not a respondent was in the intervention group, the college student leader control group, or the general student control group. This was not the case for LGS Subscales 4 and 5. Pairwise comparison tests (utilizing a Bonferroni adjustment) revealed the following in Table 8:

Table 8

Summary of Pairwise Comparisons

	Mean Difference		
	Intervention Group v. College Student Leader Control Group	Intervention Group v. General College Student Control Group	College Student Leader Control Group v. General College Student Control Group
Dependent Variable			
LGS Subscale 1: Passing on Knowledge to Next Generation	1.220*	1.439*	0.220
LGS Subscale 2: Making Significant Contributions for Betterment of One's Community	0.375	1.430*	1.055*
LGS Subscale 3: Doing Things That Will Have Enduring Legacy	0.898	2.130*	1.232*
Total GBC Score	0.638	6.144*	5.506*
Total Personal Strivings	1.176*	1.285*	0.109

*Significant at the $p < .05$ level (with Bonferroni adjustment)

Multivariate tests, follow-up univariate ANOVAs, and pairwise comparison tests for the MANOVA yielded similar results with the exception of LGS Subscale 5. The univariate ANOVA on this variable revealed group membership having a significant effect. Pairwise comparisons on LGS Subscale 5 revealed that the intervention group scored significantly higher than both control groups. While the MANOVA analysis was not the primary intent of this quantitative phase, the results were still important for review given that the set of controlling variables used in the MANCOVA analysis were not commonplace among generativity studies.

In sum, college student leaders who mentor (intervention group) demonstrated higher generativity than general college students in all areas of generative concern (LGS Subscales 1 – 3), generative action (GBC), and generative commitment (Personal Strivings). In comparison to other college student leaders (who do not mentor), college student leaders who mentor demonstrated higher generativity in the areas of generative concern as it relates to passing on knowledge to the next generation (LGS Subscale 1) as well as generative commitment (Personal Strivings). College student leaders as a group (intervention group + college student leader control group) demonstrated higher generativity than general college students in the areas of generative concern as it relates to making a significant contribution to the betterment of one's community and doing things that will have an enduring legacy (LGS Subscales 2 and 3) as well as generative action (GBC).

Phase 2: Qualitative

The second phase of this research study focused on the experiences of nine intervention group students with generativity in the context of a mentoring relationship in

order to answer the research question, *What meaning do college students ascribe to their experiences with generativity in the context of mentoring*? All nine participants were current or former NHRI students that had demonstrated high generativity scores on two or more quantitative measures in the first, quantitative phase. Since the quantitative results of this research study revealed that NHRI students demonstrated, by enlarge, higher generativity, these nine students were selected, because they could likely best capture the experience with generativity in the context of a mentoring relationship. The author chose to stop interviewing after nine, because data saturation had been reached.

Two participants were fifth-year students, five participants were seniors, and two were juniors. Three participants were female and six were male. These participants not only varied in age and gender, but also in hometown (some urban, some rural), college major, and age of mentee (otherwise referred to as "junior counselor"). Some worked with elementary-aged junior counselors, some worked with middle-school-aged junior counselors, and some worked with high-school-aged junior counselors. All in all, these participants represented a comprehensive cross-section of student participants in the NHRI program.

Several themes emerged from the data that described *what* the participants experienced with regard to generativity and *how* they experienced generativity in the context of a mentoring relationship. The themes presented in the following sections are divided into textural themes (what they experienced with regard to generativity in the context of a mentoring relationship) and structural themes (how they experienced generativity in the context of a mentoring relationship). These sections will conclude with a summary textural description, summary structural description, as well as a

description of the "essence" of these students' experiences with generativity in the context of a mentoring relationship.

Epoche. In order to avoid significant bias, the phenomenological researcher is encouraged to engage in an epoche process whereby the researcher reflects upon and articulates his or her own experience with the phenomenon in the current study. By bracketing these experiences, the researcher is better equipped to remove the confounding influence of these personal experiences when collecting, reviewing, and analyzing data (Creswell, 2007; Moustakas, 1994). Since the researcher is professionally involved with NHRI, this procedure was legitimately critical. The passage below is taken directly from the researcher's journal:

> My first experience with generativity in the context of a mentoring relationship was in NHRI as a college student participant. I was selected for NHRI as a sophomore, because I attended Texas A&M University as a freshman and was not able to take part in the NHRI program functioning only at the University of Nebraska. I was paired with a high-school-aged junior counselor and was, therefore, placed in Teenage Project. My junior counselor and I met weekly for three years—every Wednesday at 6:30 p.m. at Valentino's. As time progressed in our relationship, I felt like I became a parent to her. I was surprised by how much I cared about her success and I worried about her safety. In some ways, I felt as though I was partially responsible for her upbringing. My second experience with generativity in the context of a mentoring relationship has been as a staff person for NHRI. Anecdotally, I witness significant growth in these NHRI students from the time they are selected until the time when they graduate. I witness them grappling with and being deliberate about establishing investment relationships with their junior counselors. I also witness them developing an authentic passion for making a difference, whether that be in their career goals, volunteering, or other campus involvement. In the end, I see in them much of what I experienced as a student participant—they become second parents to their junior counselors. What starts as excitement applied toward having a new "buddy" turns into a deep, authentic care and concern applied toward what the junior counselor is going through and what decisions he or she makes.

These personal and professional experiences certainly impacted the overall qualitative data interpretation. First, many words, phrases, and references offered by the

qualitative phase participants that would be common only to those in the NHRI program were not probed for further detail, because the researcher was already familiar with those words, phrases, and references. For example, the researcher did not probe the phrase "stimulus situation" for greater detail, because the researcher is intimately familiar with the investment relationship model, where "stimulus situation" is referenced. This perhaps biased the interpretation, because the researcher assumed that the participants interpreted "stimulus situation" in the same way the researcher interpreted said phrase.

Second, due to the researcher's professional involvement with the intervention group, personal accounts offered by the qualitative phase participants were not probed for greater detail, because the researcher was already familiar with those instances. The researcher was previously aware of many of the experiences shared by the qualitative phase participants, because those experiences were shared during weekly project meetings when they originally occurred. This perhaps biased the interpretation, because the researcher may have drawn conclusions based on her own recollections, rather than what was specifically shared by the participants during the interviews.

Textural themes. As previously mentioned, several themes emerged from the data that described *what* the participants experienced with regard to generativity and *how* they experienced generativity in the context of a mentoring relationship. Textural themes presented in this section capture *what* the participants experienced with regard to generativity in the context of a mentoring relationship. In the current study, the textural themes can best be described using a timeline. Figure 18 (see p. 115) illustrates this timeline.

Figure 18. Textural theme timeline.

Prior to their mentoring experience in the NHRI program, the participants indicated that the "seed of generativity" had perhaps already been planted. When asked to provide their perspective on the quantitative results, the participants suggested that the students selected for the NHRI program are perhaps more generative to begin with, but that their mentoring experience "magnifies" their existing generativity. Once in the NHRI program, the participants described negotiating the balance between a friendship and mentorship as being the crux of what they experienced with regard to generativity. As a result of their experience, the participants integrated generativity into who they are and into what they do.

"Seed of generativity." Between questions five and six in the interview protocol, the participants were given the formal definition of generativity. Questions six and seven then specifically probed their thoughts and feelings on the relationship between their NHRI experience and generativity. Four participants argued that NHRI students are perhaps more generative prior to entering the program, but grow their generativity through their mentoring experience in NHRI. Bryan artfully articulated this notion:

> I kind of think about whether or not NHRI planted the seed of generativity in me or whether the seed was already there, but just helped it grow. And I would argue

> that because of the selection process, NHRI counselors are already…there's already that seed of generativity sort of planted. They are students that do have some sort of commitment to invest in the lives of other people, so the seed is there, and NHRI just kind of provides the water and the sunlight and the good soil to help it really grow and develop. In my own experience, that would be the case.

Table 9 highlights some of the significant statements and meaning units that correspond with this theme.

Table 9

"Seed of Generativity" Theme

Significant Statement	Meaning Unit
…there's already that seed of generativity sort of planted… NHRI just kind of provides the water and the sunlight and the good soil to help it really grow and develop	Students involved in NHRI are already generative, but their mentoring experience develops that generative "seed"
…the people that NHRI attracts are people that care about others… I also think that the experience magnifies that	Generative concern is already apparent, but the mentoring experience in NHRI "magnifies" their generative concern
I would imagine that it would be very difficult for anybody to mount any kind of generative concern if they didn't feel that, at some point in their life, that multiple people had invested in them and taken an interest in their future success	Students who are attracted to mentoring through the NHRI experience have likely already been the recipient of someone else's generativity
I would imagine that if people possess that generative concern, that's why they would be interested in the program	Interest in mentoring is perhaps explained by already possessing a higher level of generative concern
Coming to college, I knew that I wanted to be a part of a group that made a difference. And I think that this is the best possible way that I could have done that	Saw the mentoring opportunity as the best possible way to be generative

When asked to provide insight and input to explain the quantitative phase results, Ken echoed Bryan's comments: "…the people that NHRI attracts are people that care about others… But, I also think that the experience magnifies that." When asked the

same question, Steve added a new angle, suggesting that NHRI students are more generative, because they had been the recipient of someone else's generativity:

> I would imagine that it would be very difficult for anybody to mount any kind of generative concern if they didn't feel that, at some point in their life, that multiple people had invested in them and taken an interest in their future success. So, I mean, in some ways, that group of people is very fortunate to have had that kind of interest taken in them, to have somebody else's generative concern play out to their benefit.

Gwen indicated in her comments that the NHRI program gave her an outlet for her generative concern: "Coming to college, I knew that I wanted to be a part of a group that made a difference. And I think that this is the best possible way that I could have done that."

Once in the NHRI program, the participants discussed negotiating the balance between friendship and mentorship. All nine participants discussed that their relationship with their junior counselors started as a friendship, then moved toward a mentorship, then moved toward a relationship where the friendship and mentorship occurred simultaneously and harmoniously. Steve articulated this notion: "I mean, it's that of a mentee and a mentor, but it's that of friends too, a little bit, I think. Reconciling those two roles is probably the best way to summarize what it is." Glen confirmed Steve's sentiments when he described his relationship with his junior counselor as a "friendly mentorship relationship." Michael added to this idea when he declared, "My relationship with my junior counselor is a friendship built on building [my junior counselor] into a better leader."

Friendship. As previously mentioned, the relationships with their junior counselors began as friendships. Table 10 (see p. 118) highlights this theme as well as some of the significant statements and meaning units corresponding to that theme.

Table 10

Friendship Theme

Significant Statement	Meaning Unit
I was so excited to have him and get to know him	Experienced excitement at the beginning of the relationship
I think the friendship in some ways has to develop itself first, because if there's a formality to the relationship, then that's kind of not totally a pretense you want at first	Friendship is established first
…because everyone else in the program has these great relationships, you just expect it to happen	The counselor expects to have a positive experience with his/her junior counselor
I just kept probing her with a lot of questions, because I wanted to know more about her	At the beginning of the relationship, asking questions was a vehicle to get to know the junior counselor
A hot button that we found among us was UNO, so we played a lot of UNO	At beginning of relationship, sought "hot buttons"
And it was me just kind of trying to get to know him and his family and starting to feel comfortable around each other in order for us to kind of maybe progress into something a little deeper	At the beginning of the relationship, the focus was on getting to know each other; Sought comfort; Established friendship first
…when we first started hanging out, it was very me-driven	Counselor-initiated in the beginning
The first couple times we hung out were very, very natural	Experienced comfort at the beginning
I was nervous going in, because I didn't know what to expect	Nervous at the beginning of the relationship
I felt a lot of pressure to be perfect for [my junior counselor]	Felt pressure at the beginning of the relationship
I think I was a little bit intimidated by the thought of having to do it consciously and having to kind of document my experience and be great for [my junior counselor]	Was intimidated to consciously form a relationship

All nine participants discussed a "get to know you" period that occurred in the beginning of their relationships with their junior counselors. Ken recalled the first few

times that he met with his junior counselor: "I remember when we were just throwing the football around talking about classes, talking about what we wanted to do with life, favorite sports teams, and a little bit of other small talk. In general, the first few times were just getting to know each other." Glen recalled a similar experience: "We'd play a lot of sports right away. And it was me just kind of trying to get to know him and his family and starting to feel comfortable around each other in order for us to kind of maybe progress into something a little deeper." The focus at this stage of the relationship was on building the friendship. Steve elucidated this idea: "I think the friendship in some ways has to develop itself first, because if there's a formality to the relationship, then that's kind of not totally a pretense you want at first. It's a lot easier and maybe more advantageous to develop the friendship first."

Asking questions was a strategy used by over half of the participants when they began their relationships with their junior counselors. Michael mentioned this strategy when asked about the early stages of his relationship: "And so it was kind of obviously getting to know him and getting to know what he likes, but it was a lot of batting questions around." Aaron added that the relationship was counselor-driven at that point: "So, when we first started hanging out, it was very me-driven. It was a lot of me asking questions, a lot of me kind of trying to pull stuff out of him, because he wasn't very forthcoming or open, and it just took time to get comfortable I think." Leslie indicated that she utilized this strategy to discover her junior counselor's "hot buttons:"

> I just kept probing her with a lot of questions, because I wanted to know more about her. Wanted to talk about things that she enjoyed. A hot button that we found among us was UNO, so we played a lot of UNO. And that was a nice way to just kind of get to know each other, because your hands are busy doing something and, you know, conversation flows freely.

Renae added that discovering her junior counselor's hot buttons led to finding commonalities: "We just clicked right away also. We have so much in common and we found our hot buttons right away. We found what made each other tick. It's just taken off from there exponentially."

Over half of the participants recalled their feelings and emotions when they began their relationship with their junior counselor. Bryan recounted feelings of excitement: "…I remember watching him during that play and just thinking, 'That's my junior counselor.' I was so excited to have him and get to know him, because he was just such a character on stage." Aaron added feelings of high expectations: "…because everyone else in the program has these great relationships, you just expect it to happen." Leslie recalled feelings of pressure: "I felt a lot of pressure to be perfect for [my junior counselor]." Renae furthered Leslie's sentiments by articulating feelings of nervousness:

> I was nervous going in, because I didn't know what to expect. It was a hard concept for me to grasp to consciously form a relationship with someone from the ground up, because it's something that comes very natural to me. So, I think I was a little bit intimidated by the thought of having to do it consciously and having to kind of document my experience and be great for [my junior counselor].

While finding comfort took time for some, other participants experienced comfort in the beginning of the relationship. Ken discussed how comfortable he was with his junior counselor in the beginning: "[My junior counselor] has no problem taking the initiative in talking and finding things to converse about. And that was beneficial to me, because it made it less uncomfortable for me that we were able to find commonalities right away and just talk about those and get used to being around each other." Renae and Gwen also experienced a comfortable beginning. Renae stated, "The first couple times we hung out were very, very natural. Our conversation flowed easily. [My junior

counselor] took initiative right off the bat." Gwen added, "The first time [my junior counselor] and I hung out, it was honestly…we were at ease with each other."

Friendship → Mentorship. Once the friendship was established, a mentorship component began to take shape in the relationship with their junior counselors. Table 11 highlights some of the significant statements and meaning units that correspond with this theme.

Table 11

Friendship → Mentorship Theme

Significant Statement	Meaning Unit
…first you want to get to know them in a positive way. I felt like it was a little difficult to sow the seeds of investee/investor at that point… But, after the first couple months that the junior counselor could see a direction to what we were doing… That there was a bigger purpose here	Relationship began as a friendship, then moved toward a mentorship
And now I would say that somewhere along the way and consistently along the way, it's important to communicate that you're there for an NHRI relationship. And for the relationship to be there, to be the investor in the relationship	Friendship then moves to mentorship
And so, like I kind of mentioned along the spectrum, it went from fun to progressively more of a balance if not even a little more on the side of focusing on, "Okay, you need to do this or think about this. I've seen this and you should be doing this."	Relationship started as just "fun," then incorporated mentorship component
…that first year definitely was a lot of kind of just feeling each other out… Then it kind of settled into a mix of us getting to know each other and talking actually beginning to dig into NHRI concepts	Friendship and mentorship began to mix

Glen articulated this movement from friendship to mentorship along a spectrum: "And so, like I kind of mentioned along the spectrum, it went from fun to progressively

more of a balance if not even a little more on the side of focusing on, 'Okay, you need to do this or think about this. I've seen this and you should be doing this.'" Aaron confirmed this notion: "That first year definitely was a lot of kind of just feeling each other out I would say…Then it kind of settled into a mix of us getting to know each other and talking actually beginning to dig into NHRI concepts." Steve further articulated a progression from friendship to mentorship:

> …first you want to get to know them in a positive way. I felt like it was a little difficult to sow the seeds of investee/investor at that point. So, that was something that had to kind of develop over time. But, after the first couple months that the junior counselor could see a direction to what we were doing. And in that way that we weren't just hanging out every Friday. That there was a bigger purpose here.

Once the friendship was established, all of the participants discussed their work as a mentor with their junior counselors.

Mentorship. The participants universally discussed a mentorship element of their relationship with their junior counselors that pushed the relationship past friendship. The mentorship component for the respondents largely included identifying strengths in their junior counselors and challenging the development of those strengths. Furthermore, the participants discussed their role as a "living diary" to their junior counselors and a desire to help their junior counselors recognize and grow their potential. Two of the participants shared a feeling of reciprocity, in that, they felt they learned as much from their junior counselors as the junior counselors learned from them. Table 12 (see p. 123) outlines the Mentorship theme along with a sample of significant statements and meaning units.

Table 12

Mentorship Theme

Significant Statement	Meaning Unit
We want to be the best that we can be… And we have to continue to grow. We can't just stay stationary or spin our wheels or anything like that	Push the relationship past just friendship
…setting a good example…that's where it starts	In the beginning of the relationship, the counselor just works to set a good example
I pushed him to not only say hi to the younger underclassmen in the theater program, like in the halls, but actually get to know them, learn their names, learn more about them. And, a lot of it was through that avenue to just helping him understand how he could reinvest	Challenged the junior counselor to reinvest strengths to help others
I kind of assumed the role of just being like his living diary, something that he could tell me things and reflect on and then help him interpret what happened	Serve as a "living diary" to the junior counselor
I try to, in terms of putting him in stimulus situations to work on his harmony strength or his includer strength	"Stimulus situations" used to develop junior counselor's strengths
I got to identify a couple of her strengths and then the next time we met, we talked about strengths	Identify strengths in junior counselor and then reflect back those strengths
…at the end of the day, if these three years, if he understands what his strengths are and then his ability that he has to use those strengths to positively impact people. If he can understand that at the end of our three years, it has been a success	Wants junior counselor to know his/her strengths and use those strengths to impact others positively
We have some similar talents and some that she brings out in me and I bring out in her. It's a very reciprocal relationship	Mentorship has reciprocity
In the course of our time together, I hope that I've been able to, I think that I have, managed to have [my junior counselor] achieve a certain level of reflectiveness and introspectiveness that is, you know, crucial in development	Helped junior counselor reflect and introspect regarding life experiences

When asked about how the relationship with his junior counselor developed, Bryan discussed wanting to push the relationship past just a friendship: "We want to be the best that we can be… And we have to continue to grow. We can't just stay stationary or spin our wheels or anything like that." Bryan went on to discuss his goals as a mentor to his junior counselor:

> …my overall goal, I guess if you could call it, was to help him really understand his leadership approach or strengths or qualities…I pushed him to not only say hi to the younger underclassmen in the theater program, like in the halls, but actually get to know them, learn their names, learn more about them. And, a lot of it was through that avenue to just helping him understand how he could reinvest within [his school's] theater program.

Over two-thirds of the other participants assumed the mentorship role by identifying strengths in their junior counselor and challenging the development of those strengths. Leslie shared that she was able to identify a few strengths in her junior counselor the first time she saw her interacting with friends:

> I got to identify a couple of her strengths and then the next time we met, we talked about strengths. And she happened to have taken the StrengthsQuest and reaffirmed that the strengths that I guessed that she had she actually did have. So, that more or less gave me confidence to move forward and to start challenging her more to grow into her potential.

When asked what he is trying to accomplish with his junior counselor, Steve responded, "I guess, it just seems like an elementary answer, but in terms of moving his talents to like strengths and recurring patterns that he can use without having to think about it too much." Steve recounted specific situations where he worked to develop his junior counselor's strengths:

> I try to, in terms of putting him in stimulus situations to work on his harmony strength or his includer strength. One of the most important things is to get him to have me and him interact with other people. So, one of the classic examples is going to the park and putting him in a situation where we're playing a game of tag with the two of us, but there's lots of other kids running around the park. It might

> be nice to invite them to play with us and in that sense, he gets an opportunity to use that strength, and I see him use it a ton when he invites people to play with us or makes up a new game that involves other strangers or kids in the park, whereas if we didn't do that, that opportunity for expression would be lost in the context of our time together.

Aaron added to Steve's idea when he declared, "I guess at the end of the day, if these three years, if he understands what his strengths are and then his ability that he has to use those strengths to positively impact people. If he can understand that at the end of our three years, it has been a success."

One-third of the participants discussed their role in helping their junior counselors reflect and introspect. Bryan called it being his junior counselor's "living diary:"

> It was just a lot of time where I talked through things with him. So, I kind of assumed the role of just being like his living diary, something that he could tell me things and reflect on and then help him interpret what happened.

Aaron furthered this idea when he discussed how he felt he had been an influence: "…I've kind of been a person to provide my insight into what I think he is good at and what he can do and so I almost think of it in like a self-fulfilling prophecy kind of way of like, 'You can do this.'" Steve also discussed his role in helping his junior counselor reflect and introspect: "In the course of our time together, I hope that I've been able to, I think that I have, managed to have [my junior counselor] achieve a certain level of reflectiveness and introspectiveness that is, you know, crucial in development."

Two of the participants discussed reciprocity in the mentorship. Renae shared that her junior counselor "…has really challenged me as much as I've challenged her." Gwen added, "We have some similar talents and some that she brings out in me and I bring out in her. It's a very reciprocal relationship."

After the friendship was built and the mentorship component established, all of the respondents discussed that the friendship and mentorship now co-exist and work in harmony. In other words, the friendship and mentorship began to have a symbiotic relationship.

Friendship x Mentorship. The participants universally agreed that their relationship with their junior counselors had reached a level where the friendship and mentorship were able to exist simultaneously. In their relationships with their junior counselors, this level was marked by total openness and honesty as well as high levels of comfort and trust. At this stage, the junior counselor began to take initiative in the relationship to pursue growth as well as to pursue a deeper friendship. Furthermore, the junior counselor began to recognize his or her growth and the pair was able to recognize evidence that the mentorship was working. While the participants did not articulate a timeframe of when this level occurred, the reader should note that all nine respondents had been with their junior counselors for over a year at the time the study was conducted. Table 13 (see p. 127) outlines a sample of significant statements and meaning units that correspond with this theme.

When asked how he would describe his relationship with his junior counselor, Aaron explained how his relationship with his junior counselor has that balance of friendship and mentorship:

> It's kind of gotten to the point where we're pretty comfortable with each other. And so, it's not necessarily always situations or scenarios that I've developed. Sometimes I just go over there and we just hang out. And that's, I think that's important too. And so we just kind of talk about whatever comes up. Sometimes I'll go over there with plans, and sometimes we do that. But it has definitely developed into a very comfortable friendship.

Table 13

Friendship x Mentorship Theme

Significant Statement	Meaning Unit
I mean, it's that of a mentee and a mentor, but it's that of friends too...Reconciling those two roles is probably the best way to summarize what it is	The relationship with the junior counselors is both a friendship as well as a mentorship
It's a constant balance to, you know, act as a difference maker, but also an accessible difference maker	The counselor is both a difference maker and an "accessible difference maker"
I'd like to think that I impact her, but I'm not really sure that I do. She (the junior counselor) wrote back and said that I have and that she notices that now she doesn't even think to use people's names and that she can identify people's strengths much easier and that she is a lot more intentional about the things that she does and the things that she says to people	Junior counselor recognizes his/her growth
So, to see that progression rather than just knowing it's there to actually see the tangible evidence of what we're doing is working is wonderful	Recognize evidence that mentorship is working
One thing I've really seen is the extreme level of trust between us… I feel like I've been a person he can always come and talk to really about anything obviously	Counselor and junior counselor experience higher levels of trust now
I feel like in the beginning of our relationship, she was more timid and wanted to impress me. And now, it's more like, she says what she wants and she knows that she can let her guard down around me too	Now, junior counselor is willing to be open in the relationship
And now strengths conversation comes naturally to us. She's like, "Guess how I used belief today?"	The mentorship is a very natural component of the relationship now
I think it should show itself in your activities and the way you engage the other person. And after a while I think it can become just as natural a part of the relationship as laughing and being cool with each other. Being just a friend	The friendship and mentorship exist simultaneously and work together naturally;
And now, as a senior, in our third year together, we've really surpassed the confines I guess of the counselor/junior counselor relationship, and she really is more of like a friend or a sister to me	Junior counselor becomes very important to counselor—more than just a mentee

Steve further articulated this natural balance between friendship and mentorship:

> I would say that somewhere along the way and consistently along the way, it's important to communicate that you're there for an NHRI relationship. And for the relationship to be there, to be the investor in the relationship. I feel like if that's reinforced enough…It doesn't have to be something vocal, because that's kind of strange to say, "We're not here to be friends, buddy." Because that's weird and the wrong thing to say. But, I think it should show itself in your activities and the way you engage the other person. And after a while I think it can become just as natural a part of the relationship as laughing and being cool with each other. Being just a friend.

Renae spoke explicitly about how natural the mentorship component is in her relationship with her junior counselor. She discussed an intensive strengths study that she and her junior counselor completed and the natural discussions that ensued as a result:

> I think one of the biggest turning points in influencing her development has come from StrengthsFinder and really doing the intensive five-week process that we did after that. We had a lot of reflection after she took the StrengthsFinder test. We decided to take one strength per week and give each other challenges based on that strength. So, and then we would journal about it and discuss it the following week, then move on to our next strength. [My junior counselor] was a little bit surprised when her top five strengths came back and through our follow up and through our very meticulous study of each of these strengths and how it specifically applies to our life, she was able to see why it was in her top five and how she can apply it to her daily life. And so, that was one of the biggest turning points for us. And now strengths conversation comes naturally to us. She's like, "Guess how I used belief today?"

Renae synthesized this natural balance between friendship and mentorship when she said, "I like that now I don't feel like either she or I need to really plan for a meeting to have growth happen and to have discussions about leadership. It's always just very natural."

Over half of the respondents commented on how open and honest their relationship is with their junior counselor and how much comfort and trust exists between them. Ken, for example, indicated that his relationship with his junior counselor "developed in trust and being able to open up to one another." He further noted, "I would say our relationship now is a little bit less tense in terms of trying to always get

something done… now [my junior counselor] and I just feel comfortable around each other." Michael confirmed this level of depth with his junior counselor when he stated, "One thing I've really seen is the extreme level of trust between us…I feel like I've been a person he can always come and talk to really about anything obviously." Renae discussed the difference in her relationship with her junior counselor now as compared to the beginning: "I feel like in the beginning of our relationship, she was more timid and wanted to impress me. And now, it's more like, she says what she wants and she knows that she can let her guard down around me too." She went on to say, "…we've really surpassed the confines I guess of the counselor/junior counselor relationship, and she really is more of like a friend or a sister to me." Other participants also commented on how close they feel to their junior counselor. Gwen commented, "We are more comfortable, more open with each other. As far as proxemics go, we're more, I don't want to say 'touchy feely,' but I mean, we're not afraid to be more intimate with each other. The level of comfortability has increased a lot." Leslie added:

> Now I'm just so protective of [my junior counselor]. That seems silly, but at the beginning, I didn't necessarily feel so protective over her or just so empathetic of her actions and her excitement. When she was elected student body president and she told me, I was really, really excited and I was maybe even more excited than she was. But I don't think I would have had that reaction in the beginning.

At this level of the relationship, three participants indicated that their junior counselors recognize their growth and the pair recognizes that the mentorship is working. Leslie indicated that she and her junior counselor pass a journal back and forth each week. In one journal entry, her junior counselor articulated Leslie's influence on her: "…she notices that now she doesn't even think to use people's names and that she can identify people's strengths much easier and that she is a lot more intentional about the

things that she does and the things that she says to people." When asked about hallmark moments in her relationship with her junior counselor, Gwen discussed how she saw the fruits of their mentoring relationship:

> One hallmark moment was last year when [my junior counselor] and I were talking about different strengths, different things that I saw in her. And one of them was leadership potential. Obviously, we all have that. But I thought that she could do more to develop it. And she took that challenge and she ran with it. She joined FBLA and now she's the Vice President of FBLA. So, to see that progression rather than just knowing it's there, to actually see the tangible evidence of what we're doing is working is wonderful.

Michael summed up this idea when he discussed how he and his junior counselor have realized growth in the "little things:"

> [My junior counselor] and I haven't had necessarily hallmark moments where it's like an "aha" moment, I don't think. It's the little things. It's when he, out of the blue last week was like, "We talked about bullying in student council today. And I've noticed myself in these situations." And like, little things like that to where I realize his growth and development. We're reasonably even-keeled. He doesn't respond extremely well to deliberate NHRI, like, "Okay, we're going to go do this stimulus situation. Go do this memory activity." But, it's times when he embraces NHRI on his own that have been hallmark moments.

In sum, at this stage of their relationships with their junior counselors, the participants experienced generativity as a symbiotic relationship between friendship and mentorship. The high levels of comfort, trust, openness, and honesty allowed the participants to become true "difference makers" to their junior counselors. As a result of their mentoring experience, the participants universally commented that generativity had become integrated into who they are and into everything they do. The following section illustrates this theme.

Generativity integrated into what they do and who they are. All nine participants' comments suggested that, as a result of their mentoring experience, generativity had become integrated into what they do and who they are as people. The

participants discussed being intentional, now, about investing in people and being intentional about recognizing potential in others. Some participants discussed that their mentoring experience has challenged them to move from being self-centered to being others-centered. Others indicated that generativity now exists on a conscious level and that their life philosophy has become generative in nature. A few participants also discussed a heightened interest now in establishing a legacy, which is indicative of generative motivation. Table 14 (see p. 132) outlines some of the significant statements and meaning units corresponding with this theme.

As previously mentioned, between questions five and six in the interview protocol, the interview participants were given the formal definition of generativity, then asked to discuss their views regarding the impact, if any, that their NHRI experience had on their generativity. Aaron indicated, "I would definitely say that NHRI has changed my life, changed my perspective on how I interact with people. And what those interactions mean…At least for me it has become something I don't even necessarily think, it's integrated into everything." Bryan echoed Aaron's comments when he said, "…once I got into NHRI…it allowed me to realize certain things that helped me understand this is who I am and this is what I need to be doing." Leslie furthered this idea when she discussed a generative "calling:"

> And I think that I do feel this really strong calling to affect the next generation, specifically working with young people and developing potential. And that's all due to NHRI, because it has taught me how exactly to go about doing that and it has made me more effective.

Table 14

Generativity Becomes Integrated Theme

Significant Statement	Meaning Unit
I've made a very concentrated effort to look at individuals in the grades below that I feel like I could have a positive impact on and try to help them to just reach their full potential	Intentional about investing in younger people
I've tried to keep clear that there's a value in the message and the process of NHRI… that there's potential in every single individual and that they want to find it and that the best thing you can do is show them where that is and the different ways in which it can be developed	Life philosophy becomes generative in nature
…my experience in NHRI has contributed to my future life goal of being an educator and wanting to work with students and other people	Generativity becomes integrated into career path
…before I started NHRI, I was very me focused… After starting NHRI…I realized that deep down, I, at that time and now, I really don't find anything meaningful unless it is in some way helping people. If there's some way that I can help people influence people in any sort of way, that's why I do what I do	Move from being me-centered to others-centered
NHRI has become so integrated into my thought process and my relationships with everybody. It's not even something that I do anymore, it's who I am.	Being generative becomes "who I am"
It (the NHRI experience) helped me realize what those strengths are…but how to use those strengths to help others	Learned how to use their talent in a generative way
It has brought it to a conscious level to where it's not just something I'm working to do because that's what I like to do or because that's what I feel like I need to do, but I realize why I do it	Generativity is on a conscious level
…it's less of leadership for the sake of leadership, but more because I genuinely care about the people that I'm leading, and I want the best for the organizations that I'm involved with, and I want to leave that legacy that empowers other people to lead in a similar sort of way	Leadership for the purpose of leaving a legacy
I want to make it my mission to invest in other people that I encounter	Life mission becomes generative in nature

Glen added, "I feel this in myself, that urge to be more generative…it's just a matter of being intentional about everything. That's really the main thing, but, to be intentional, you have to first value both relationships and helping people and seeing them progress too."

Over half of the participants discussed that their mentoring experience has changed the way they approach their relationships with others. Many of them discussed being more "intentional" about realizing others' potential and investing in that potential. Ken commented, "And I've made a very concentrated effort to look at individuals in the grades below that I feel like I could have a positive impact on and try to help them to just reach their full potential." Steve confirmed Ken's sentiments when he stated, "…I've tried to keep clear that there's a value in the message and the process of NHRI…that there's potential in every single individual and that they want to find it and that the best thing you can do is show them where that is and the different ways in which it can be developed…." Aaron added, "…after NHRI, I've kind of realized the importance of investment in other people and just that it's such an easy thing to do and it is something you can do in almost any area or any field or any activity. But it's something that, as easy as it is, it takes intentionality."

Michael discussed that generativity is now on a "conscious" level for him by virtue of his NHRI experience. Michael indicated that his NHRI experience "has brought it (generativity) to a conscious level to where it's not just something I'm working to do because that's what I like to do or because that's what I feel like I need to do, but I realize why I do it." Michael noted, however, that his generativity consciousness is not just limited to the next generation, but rather he recognizes potential in others regardless of

their age. Renae discussed generativity in terms of the "ripple effect" and making investing in people as part of her life mission: "I want to make it my mission to invest in other people that I encounter whether it be my own family, whether it be my friends, in my career and otherwise. I think it's very important to have those relationships and empower other people and push them to be the best version of themselves."

Approximately half of the participants discussed that generativity has become integrated into what they want to do professionally by virtue of their mentoring experience. Bryan articulated this desire when he said, "I ended up going into education and that, in and of itself, is solely due to my NHRI experience, because it helped me understand that if I were doing anything other than directly working with students or other people that it would be just a waste of my time." Leslie echoed Bryan's comments: "…my experience in NHRI has contributed to my future life goal of being an educator and wanting to work with students and other people." Aaron discussed his lifelong interest in science and research, but how his NHRI experience altered his focus within scientific inquiry:

> …I've realized that I still want to do science because of the innovation and the discovery that is possible there, but at the same time, I've, and this is most likely because of NHRI, I've also realized that I'm really passionate about education, the education side of research. And having students in my lab when I eventually become a professor who I can set on the same track that I've been set on or help them to find that maybe research isn't their passion, but this is.

To further describe the integration of generativity, three participants discussed a new interest in establishing a legacy, which is a concept discussed often in generativity motivation. Renae articulated this legacy interest:

> And it's less of leadership for the sake of leadership, but more because I genuinely care about the people that I'm leading, and I want the best for the organizations that I'm involved with, and I want to leave that legacy that

> empowers other people to lead in a similar sort of way. And so NHRI really opened that door for me to make a meaningful impact in my college experience rather than just having it to say that I had it.

Glen extended this idea when he stated, "I have no longer settled for ideas that are good for just the semester or for this year. Things that will last and continue to grow and develop, just like trying to maximize what I do in whatever context I find myself." Ken discussed this idea of legacy in terms of becoming more others-centered:

> I would say that going into NHRI, I didn't really worry about the generation after me. And, in general, I felt like I was more probably self-centered than I should have been going into NHRI. I think the experience of college and especially NHRI has made it so I look at a larger picture of things. I get to see that there is going to be life after me, and I should care about that, because it's for the betterment of society.

In sum, for these participants, generative concern, generative action, and generative commitment became integrated into what they do and who they are as a result of their mentoring experience in NHRI. Investing in people, recognizing potential in others, and establishing a legacy permeated beyond their NHRI experience but also into their relationships outside of NHRI, their future life goals, and how they wish to approach their lives.

Structural themes. As previously mentioned, structural themes capture *how* the respondents experienced generativity in the context of a mentoring relationship. From the interviews, the participants indicated that they learned how to be generative through the "lab" context of the NHRI program. The mentoring relationship with their junior counselors, the NHRI Class, their NHRI Project, various other leadership positions within NHRI, and interactions with NHRI peers and NHRI staff all contributed to how these participants experienced and described generativity.

Learning how to be generative through "lab" context of NHRI. When explicitly asked why NHRI students demonstrated higher generativity, over half of the participants compared their NHRI experience to a "lab" where they learned how to be generative. The relationship with the junior counselor was their generativity "personal case study," the place where generativity became tangible and where they could put generativity into action. Table 15 (see p. 137) highlights some of the significant statements and meaning units related to this theme.

Glen spoke of the NHRI "lab" context several times throughout his interview. He indicated that, "The whole relationship that we have with our junior counselors or project partners helps to illustrate a lot of what we learn. And the thing is, it's like, it's true. You see it and it's a real thing. It becomes tangible." Glen described this idea further:

> …it's kind of like a lab. You sign up for a class, you have a lab. And that's supposed to illustrate things. This is actually a lab that I enjoy as opposed to normal science labs. But, like I said, it's really important. And it aligns in a lot of ways closely with NHRI curriculum and that idea of the self-fulfilling prophecy. Like, we can tell you this is good, but until you experience it and know you can have success with it are you really going to do it.

Aaron confirmed Glen's sentiments of a "lab" context for learning how to be generative when he said:

> …that's been where I've been able to put into practice everything that we've learned and it has been a really great learning experience, because you can sit in the classroom in the NHRI Class and learn about investment and learn about strengths and learn about listening and learn about all of that. Though you're really thinking about it in a controlled situation, it doesn't really sink in I think. So, that was where it was really impactful is applying those concepts in my relationship with [my junior counselor]. And then also applying those outside that relationship and all of my relationships, but really I guess where it first started to take hold was in that focused, controlled situation.

Table 15

Learning How to be Generative Through "Lab" of NHRI Theme

Significant Statement	Meaning Unit
…was really cool to learn about how to be a mentor for somebody, because the main thing that differentiates an NHRI relationship from a normal one in my opinion is the extent to which it's deliberate and it's deliberately trying to help somebody out, to turn their talents into strengths and to develop those further	Learned "how to be a mentor" deliberately through the NHRI experience
…then they really know what it looks like, because they're intentionally thinking about being a difference maker each time they go meet with their junior counselor… this removes everything else and is purely about being a difference maker	Counselors learn how to be generative, because they are intentional and focused on being generative in their relationship with their junior counselor
The whole relationship that we have with our junior counselors or project partners helps to illustrate a lot of what we learn…It becomes tangible	The relationship between the counselor and the junior counselor makes the idea of generativity tangible
…when we have this kind of personal case study to illustrate what it means and how that can be…and it's translatable too. Everything we learn is translatable to any context	The mentoring experience in NHRI illustrates how to be generative
You need to see positive results before you can take it forward and truly believe that this is a strength of yours…And by having this relationship, you've had success and thus are reaffirmed and can move forward and translate that	The mentoring experience in NHRI gives them the opportunity to be successful at generativity
…it's kind of like a lab. You sign up for a class, you have a lab. And that's supposed to illustrate things. This is actually a lab that I enjoy as opposed to normal science labs. But, like I said, it's really important. And it aligns in a lot of ways closely with NHRI curriculum and that idea of the self-fulfilling prophecy. Like, we can tell you this is good, but until you experience it and know you can have success with it are you really going to do it	The mentoring experience in NHRI is like a "lab" for learning generativity

Aaron further elucidated this idea of learning how to be generative in the "lab" context when he discussed the exclusively generative focus of his relationship with his junior counselor:

> And then they (NHRI counselors) really know what it looks like, because they're intentionally thinking about being a difference maker each time they go meet with their junior counselor. So, that hour, hour and a half, two hours whatever they spend with their junior counselor, they're being intentional about making a difference. And they're not really doing anything else. Because it's not like you're interacting with somebody on a sports team, or you're interacting with somebody at work, or you're interacting with somebody in class. Because those all are situations where you can be a difference maker, but at the same time, we have to do school work, or we have to go practice, or we have to play this game, whatever you have to do. But this removes everything else and is purely about being a difference maker.

"Lab" context of NHRI. All participants discussed the following as being important elements in their NHRI "lab" experience: (a) relationship with their junior counselor, (b) their NHRI Project, (c) the NHRI Class, (d) various other leadership positions within NHRI, and (e) interactions with other NHRI peers and NHRI staff. Table 16 (see p. 140) highlights significant statement and meaning unit examples that correspond with this theme.

When describing important elements to their NHRI experience, all respondents mentioned their relationship with their junior counselor. Ken, for example, when asked about his NHRI experience, stated, "When I first think about my NHRI experience, I can't help but think about my junior counselor." When asked the same question, Leslie responded similarly: "…as far as significant people in my NHRI experience, I would first say my junior counselor has been huge."

When asked to describe what they did with their junior counselors, the participants discussed meeting consistently with their junior counselors every week and

listed activities such as "sports," "hanging out," attending events that their junior counselor participated in, sharing meals, making up games, visiting the junior counselor at school, active activities such as walking or biking, "crafts," etc. Several participants discussed the importance of just simple conversation. Michael indicated, for example, "…most of the time, it's doing something that allows for conversation." Gwen added, "We talk, and our conversations are wonderful. We're both blessed in the fact that every time we're together, a concept comes up. I don't ever feel forced to bring up an NHRI concept."

All of the participants also discussed their NHRI Project as an important component to their "lab" experience. As mentioned previously, all student participants in NHRI are grouped in a "project" based on the age or school of their junior counselors. So, for example, all college students in NHRI who work with first through third graders are in Childs Project. These projects meet weekly and are a time for counselors to reflect on the growth of their relationship with their junior counselor. Furthermore, weekly project meetings are a time for counselors to receive advice and guidance regarding how to be most successful in mentoring their junior counselors. Approximately half of the participants talked about their NHRI project in terms of the support they receive from other college students in their project. Ken discussed this idea when he said:

> I think the opportunity to have individuals in NHRI that are older than you and have experience truly help you along the way. That's been something that's been helpful to me. Just to bounce ideas off them of how to go about trying to maximize your relationship with your junior counselor. I think that's something that within NHRI, especially within our project, bouncing ideas off the others in the group, has been helpful. And that group setting has allowed for people to cathart in a situation that they otherwise wouldn't be able to as far as relationships go.

Table 16

"Lab" Context of NHRI

Significant Statement	Meaning Unit
It (the NHRI experience) had a number of different layers to it. I first had my relationship with [my junior counselor], that was the first one. I had my experience in the Class, the training course, both as a student and as a teaching assistant. My role as [an NHRI] Project Co-Chair. In our project meetings as well as the Priceless Preteen experience	Their experience in NHRI included the relationship with their junior counselor, the NHRI Class, their NHRI project, and other opportunities, such as Priceless Preteen
I think my NHRI experience is four-fold. One has been obviously my relationship with [my junior counselor]. The second has been my relationship with my [NHRI project], other senior counselors. They've been a great support system…The third area where I've really seen the NHRI experience was as a TA in the Class and as a student in the Class. And then fourth, the most recent development has been my role as staff advisor	The important pieces of their NHRI experience includes the relationship with the junior counselor, their NHRI project, the NHRI class, and other opportunities, such as their leadership roles
…most of the time, it's doing something that allows for conversation…Something to keep his attention, but to where we can still have a conversation is what I generally aim to do	The counselor/junior counselor relationship involves doing something that creates an opportunity for conversation
The Class was, as a student taking a class, that was probably the most significant portion of my experience in developing my blueprint for approaching relationships	The NHRI Class is an important component of the experience
I don't know if this is worth mentioning, but my interactions with [the Director]…Someone that's able to provide guidance all throughout the process	Interactions with NHRI staff are an important part of the experience—where they receive guidance
…opportunity to have individuals in NHRI that are older than you and have experience truly help you along the way… I think that's something that within NHRI, especially within our project, bouncing ideas off the others in the group, has been helpful	NHRI peers in their NHRI project are important to the experience
And then also the peer group I feel like in NHRI is similarly minded… Having that sort of backup or, if you're competitive, that competition to really invest in people, I think is another reason that NHRI students are more generative	NHRI peers are an important part of the experience and help to develop generativity

Gwen commented on how strongly she feels about the fellow students in her project: "You make connections that last throughout your whole college experience which is awesome. And within [my project], oh my gosh. Everybody in [my project] I would take a bullet for. I really would. And that's something I feel really strongly about." Renae discussed that she learned how to invest from other college students in her project:

> I think specifically in [my project], I've formed relationships with the other counselors that have really been of value for me in dealing with my relationship with [my junior counselor], which has been awesome, and also it has translated so well to my other leadership experiences. They truly care about me as an individual, and in the way that we invest in our junior counselors, the other counselors also invest in my as a person and want to see me grow and excel and be the best that I can be.

The participants all discussed their experiences in the NHRI Class as being yet another important element to their "lab" context. Some discussed the impact of the Class itself, others discussed the impact of the relationships with other students and teaching assistants in the Class. Steve discussed his experience with the NHRI Class both as a student and as a teaching assistant:

> I was talking to [another NHRI student] about how happy I was to have the opportunity to go through the Class again. Because the first time going through it for me was I took those concepts to heart in the context of applying to myself and the way that I look at the world and the way that I relate myself in the things that I do. And the second time, I'm so thankful for it, because it's allowed me to refocus that and turn it all back to the counselor/junior counselor relationship.

Glen also discussed the significance of the NHRI Class in his NHRI experience: "The Class was, as a student taking a class, that was probably the most significant portion of my experience in developing my blueprint for approaching relationships." Ken commented further, "…the NHRI Class and the NHRI experience really pushed me to get

to know other people and to take an interest in other people more so than I had previously had."

Finally, the participants all spoke at length about the importance of their relationships with other NHRI students and their interactions with the NHRI staff in developing their generativity. Glen indicated, "I would consider my friends from NHRI my closest friends… Just because it's a group of people who kind of understand the value of getting to know someone else and asking big questions." Approximately one-third of the participants discussed how their peers in NHRI are "similarly minded." Aaron articulated this notion when asked to explain why NHRI students demonstrated higher generativity:

> And then also the peer group I feel like in NHRI is similarly minded. And so you have a group of people who all care about the same things that you care about and want to pursue the same things that you want to pursue. Having that sort of backup or, if you're competitive, that competition to really invest in people, I think is another reason that NHRI students are more generative.

Leslie furthered Aaron's sentiments when she said, "…by virtue of being surrounded by similar and like-minded people, you probably have a greater likelihood of having those same feelings, just by virtue of being around those people."

In sum, the participants learned how to be generative through the "lab" context of the NHRI program. The relationship with the junior counselor provided a "personal case study" to illustrate generative action, the experience with their NHRI Project provided the participants with a support system, the NHRI Class is where the participants learned concepts relative to generativity that could be applied to the junior counselor relationship, and their peers in NHRI served as role models and challenged them to develop their generativity.

Textural description. The composite textural description captures "what" the study participants experienced (Creswell, 2007; Moustakas, 1994). For the current study, this section will summarize "what" the participants experienced with regard to generativity in the context of a mentoring relationship.

The participants' experiences with generativity in the context of their mentoring relationships followed a timeline (see Figure 18 on p. 115). Prior to their mentoring opportunity in the NHRI program, the participants experienced a "seed of generativity" already planted. Once in the program, they received the care and guidance to help that seed grow. The participants experienced generativity in the context of their mentoring relationships by negotiating the balance between friendship and mentorship. The beginning stages of their relationships with their junior counselors involved establishing a friendship. This period was marked with feelings of high excitement and high anxiety with attention paid to getting to know the junior counselor and asking questions to find his or her "hot buttons." While the relationship was counselor-driven during this stage, some of the participants experienced comfort right away while others shared that comfort took time to develop.

Once the friendship was established, the participants challenged the relationship past friendship by deliberately adding a mentorship component. The participants sought to identify strengths in their junior counselors and challenged the development of those strengths. They wanted to help their junior counselors understand their potential and desired to help their junior counselors grow. Beyond their role in developing their junior counselor's potential, the participants served as a "living diary" to their junior counselors, helping them reflect upon and interpret their own life experiences. Some participants

shared a feeling of reciprocity in the mentorship, in that, they felt they learned as much from their junior counselor as their junior counselor learned from them.

Once the friendship was established and the mentoring element took shape, the relationship with their junior counselors morphed to reflect a symbiotic relationship between friendship and mentorship. At this stage, the friendship and mentorship flowed naturally together and could exist simultaneously. The participants and their junior counselors were able to recognize evidence that the mentorship was working. In particular, the junior counselors were able to recognize and articulate their growth. This stage of the relationship was marked by total openness and honesty between the pairs as well as high levels of comfort and trust. The junior counselors began taking initiative in the relationship to grow and to pursue a deeper friendship, and the counselors truly became "difference makers" to their junior counselors.

As a result of their mentoring experience, the participants experienced generativity as being integrated into what they do and who they are. Investing in people, recognizing potential in others, and general concern for others are on a conscious level for the participants and have become integrated into their life philosophy and mission. Their mentoring experience has ignited a sincere interest in establishing a leadership legacy that others can learn from.

Structural description. The structural description captures "how" the study participants experienced the phenomenon; in other words, the contexts or settings in which the phenomenon occurred (Creswell, 2007; Moustakas, 1994). For the current study, this structural description section summarizes "how" the participants experienced generativity.

The participants referred to their mentoring experience in the NHRI program as being their "lab" for learning how to be generative. The primary context in which the participants experienced generativity was in their mentoring relationships with their junior counselors. Their relationship with their junior counselor was where they could put generativity into action. Their weekly interactions with their junior counselors involved sports, crafts, games, community service, sharing meals, active activities such as biking or walking, attending the junior counselor's various events, and finding opportunities to just "sit and talk."

The "lab" context, however, extended far beyond their relationship with their junior counselor. The NHRI Class, their NHRI Project, various other leadership opportunities within NHRI, and their interactions with NHRI peers and staff all played a significant role in the "lab" context. The NHRI Class served as a place to learn about principles relative to generativity, such as listening and empathy. Their NHRI Project existed as a place where they could reflect weekly on their experiences with their junior counselors and to receive advice and guidance. All of the participants also mentioned other various leadership roles (being a teaching assistant, staff advisor, project co-chair, etc.) as an important element to their NHRI "lab" experience. Lastly, all of the participants discussed the importance of their friendships and interactions with their fellow NHRI peers and NHRI staff members. The participants referred to these individuals as some of their "best friends" and that these individuals brought out the best in them.

Essence. The essence section of a phenomenological study is designed to capture a composite viewpoint of both the textural and structural descriptions (Creswell, 2007;

Moustakas, 1994). For the current study, this section describes the "essence" of the participants' experiences with generativity in the context of a mentoring relationship. This section will provide a comprehensive picture of both the textural and structural descriptions that contributed to the participants' experiences with generativity in the context of a mentoring relationship.

In essence, the participants ascribed meaning to their experiences with generativity in the context of mentoring by learning how to be generative through their "lab" experience in the NHRI program. Through their mentoring relationship with their junior counselor, they experienced generativity by negotiating the balance between friendship and mentorship. By intentionally negotiating that balance, the participants reached a place with their mentees where the friendship and mentorship could exist simultaneously and in harmony. Beyond the mentoring relationship, the participants learned how to be generative through their experiences in the NHRI Class, their NHRI Project, various other leadership experiences in NHRI, and interactions with their NHRI peers and NHRI staff.

While the participants universally agreed that they learned how to be generative through their NHRI "lab" experience, they discussed entering their mentoring experience with the "seed of generativity" already planted. The NHRI "lab" experience provided the "water and the sunlight and the good soil to help it really grow and develop."

As a result of their mentoring experience, the participants ascribed meaning to their experiences with generativity in the context of mentoring by recognizing that generativity had become integrated into what they do and who they are. They articulated being intentional about investing in people and recognizing potential in others, regardless

of age. Generativity now exists on a conscious level and has become integrated into their life philosophy and mission. Their mentoring experience encouraged the participants to become more others-centered and sparked a sincere interest in establishing a legacy of generative leadership for generations to come.

The following chapter integrates data results from both the quantitative and qualitative phases. A model of generative leadership is presented as well as a discussion of the current study's findings fill existing literature gaps. Implications and future research studies are also examined.

CHAPTER 5

Discussion

The purpose of this embedded explanatory sequential mixed methods study was to examine the impact of mentoring relationships on generativity in college students. Chapter 5 is dedicated to integrating the results from both the quantitative and qualitative phases in order to answer the final research question, *How do the qualitative results explain the quantitative outcomes?* A model of generative leadership is then presented as well as a discourse on how the current study's findings fill existing literature gaps. Chapter 5 concludes with a discussion of implications and future research studies.

Overview

As previously stated, the purpose of this embedded explanatory sequential mixed methods study was to examine the impact of mentoring relationships on generativity in college students. The primary quantitative phase compared generativity levels between college student leaders who mentor (in the NHRI program), college student leaders who do not mentor through the NHRI program, and general college students to answer the research question, *Are college students who are involved in a mentoring relationship more generative than their peers after controlling for age, gender, G.P.A range, and college major?*. Data were collected via in-person and web-based surveys. MANCOVA results indicated that college student leaders who mentor (intervention group) demonstrated higher generativity than general college students in all areas of generative concern, generative action, and generative commitment. In comparison to other college student leaders (who do not mentor), college student leaders who mentor demonstrated higher generativity in the areas of generative concern as it relates to passing on

knowledge to the next generation and generative commitment. College student leaders as a group (intervention group + college student leader control group) demonstrated higher generativity than general college students in the areas of generative concern as it relates to making a significant contribution to the betterment of one's community and doing things that will have an enduring legacy as well as generative action. Based on the results from the first, quantitative phase, the interview protocol was adjusted and the participants for the qualitative phenomenological phase were selected from the intervention group.

The secondary qualitative phase sought to explain the quantitative results by answering the research question, *What meaning do college students ascribe to their experiences with generativity in the context of mentoring?* The reason for collecting this secondary, qualitative database was to provide a richer description of the impact of mentoring relationships on generativity. Phenomenological data analysis of nine in-depth, semi-structured interviews from the intervention group revealed several textural and structural themes to explain the quantitative results. These themes indicated that the participants learned how to be generative through their "lab" experience in the NHRI program, even if they entered their mentoring experience with the "seed of generativity" already planted. Through their mentoring relationship, they experienced generativity by negotiating the balance between friendship and mentorship with their mentee. As a result of their mentoring experience, the participants indicated that generativity had become integrated into who they are and what they do.

No other known study examining generativity in young adults has used such a design, where both quantitative and qualitative data were integrated to answer research

questions in a more comprehensive way. Based on the findings from the quantitative and qualitative phases of the current study, a new developmental antecedent for generativity emerged as well as a preliminary model of generative leadership, distinguishing college student leaders who mentor from college student leaders who do not.

Interpreting the Quantitative and Qualitative Results

This section integrates the results from both the quantitative and qualitative phases in order to answer the final research question, *How do the qualitative results explain the quantitative outcomes?* First, data results that answered the quantitative research question are offered. Next, data results from the qualitative research phase are offered as a means to explain the quantitative results. This procedure serves to organize the findings where inferential quantitative results are elucidated and supported by qualitative themes. Through this integrated interpretation, the quantitative results are more richly described by the qualitative interviews than interpretation of the quantitative results alone. These integrated findings are then compared against existing generativity and related literature.

Quantitative finding #1: College students who mentor (intervention group) demonstrated higher generativity than other college students in all areas of generative concern, generative action, and generative commitment. MANCOVA results revealed that college students who mentor demonstrate significantly higher generativity than general college students in the areas of (a) generative concern as it relates to passing on knowledge to the next generation, making a significant contribution to the betterment of one's community, and doing things that will have an enduring legacy (LGS Subscales 1 – 3) as well as (b) generative action (GBC) and (c) generative

commitment (Personal Strivings) at the $p < .05$ level. Qualitative results from the current study suggest that perhaps the "seed of generativity" was already planted in these college students who mentor. In other words, the college students who mentor through the NHRI program (the intervention group) were likely more generative than their peers even prior to their mentoring experience, but that their mentoring experience in the "lab" context of NHRI developed that raw generative inclination.

This mixed methods finding suggests that mentoring could be added to the existing literature on developmental antecedents of generativity. McAdams (2001) noted that the field of generativity could be expanded by understanding what sorts of adolescent experiences could be linked to strong generativity. To date, the following have been identified as developmental antecedents of strong generativity: (a) having a mentor, (b) parent's generativity, (c) family size, (d) parenting style, (e) educational attainment, (f) age, (g) personality traits, (h) community involvement, (i) prosocial reasoning, and (j) value patterns (Frensch et al., 2007; Lawford et al., 2005; Peterson, 2006; Peterson & Stewart, 1996; Rossi, 2001b). Being a mentor, in the existing literature, has not been identified as a developmental antecedent for early generativity and adulthood generativity. The mixed methods findings from the current study present a cogent argument for adding "being a mentor" to the list of developmental antecedents. MacDermid et al. (1998) posed the following questions as a result of their research: (a) by what means does generativity come to be expressed and (b) under what circumstances are opportunities for expression likely to be realized? The mixed methods results from the current study answer these questions by showing that being a mentor during early

adulthood (19 – 22) is a means by which generativity is expressed as well as a circumstance by which generative expression is likely to be realized.

Quantitative finding #2: College student leaders as a group (intervention group + college student leader control group) demonstrated higher generativity than other college students in the areas of (a) generative concern as it relates to making a significant contribution to the betterment of one's community and doing things that will have an enduring legacy as well as (b) generative action.

MANCOVA results indicated that both the intervention group (college student leaders who mentor) and the college student leader control group (college student leaders who do not mentor) demonstrate significantly higher generativity than general college students in the areas of (a) generative concern as it relates to making a significant contribution to the betterment of one's community and doing things that will have an enduring legacy as well as (b) generative action at the $p < .05$ level. The qualitative results provided disconfirming evidence for this finding. Intervention group students who participated in the qualitative phase cited having the "seed of generativity" already planted as reason for being more generative in comparison to their peers. Considering that college student leaders who do not mentor (college student leader control group) demonstrated higher generativity than general college students in the areas of generative concern (LGS Subscales 2 and 3) and generative action (GBC) and did not demonstrate significantly lower generativity than the intervention group on those measures suggests that perhaps college student leaders, in general, have that "seed of generativity" already planted.

This mixed methods finding confirms Komives et al.'s (2005) notion that college student leaders develop a leadership identity that becomes generative in nature.

Generativity was listed as Stage 5 of Komives et al.'s (2006) leadership identity development (LID) model. Stage 5 is evidenced by active commitment to the larger purpose of the group, articulated personal passion for activities, a recognition of leadership as service, an acceptance of responsibility for developing others and organizations, and a desire to enhance the leadership capacity of younger group members. The quantitative results from the current study also extend Komives et al.'s (2005, 2006) findings to suggest that college student leaders demonstrate generativity in their leadership identity by expressing concerns for making a contribution to the betterment of their community and for doing things that will have an enduring legacy. Furthermore, college student leaders demonstrate generativity in their leadership identity by engaging in actual, tangible behaviors that promote the well-being of future generations.

Quantitative finding #3: College student leaders who mentor (intervention group) demonstrated higher generativity than other college student leaders in the areas of (a) generative concern as it relates to passing on knowledge to the next generation and (b) generative commitment. MANCOVA results indicated that college student leaders who mentor (intervention group) demonstrate significantly higher generativity than the college student leader control group in the areas of (a) generative concern as it relates to passing on knowledge to the next generation (LGS Subscale 1) and (b) generative commitment (Personal Strivings) at the $p < .05$ level. The qualitative results from the current study offer several explanations. First, college student leaders who mentor learned how to be generative through the "lab" context of their mentoring experience in the NHRI program. In particular, they learned how to negotiate the balance between friendship and mentorship. One could reasonably argue that this negotiation is

highly related to "passing on knowledge to the next generation" and perhaps explains higher scores in this area.

These students' experiences with negotiating the balance between friendship and mentorship, however, redefine the meaning of "passing on knowledge to the next generation." The participants did not necessarily pass on their own knowledge, but rather revealed their mentees' own "riches" to themselves. The interview participants discussed adding a mentorship element to their existing friendship with their mentees by identifying strengths in their mentees and challenging the development of those strengths. They furthermore discussed acting as a "living diary," helping their mentees reflect upon and interpret their life experiences. As a result, the mentees were able to recognize and articulate their growth, and they began to take initiative in pursuing their own growth as well as pursuing a deeper friendship with their mentor.

Second, with regard to higher scores in generative commitment, qualitative phase participants indicated that they had "integrated" generativity into who they are and what they do as a result of their mentoring experience. Their life philosophies and missions reflected a conscious commitment to investing in people and recognizing potential in others. Generative commitment is evidenced by decision-making and goal setting that takes responsibility for the next generation (McAdams & de St. Aubin, 1992). Higher scores in generative commitment could likely be explained by their "integrated" generativity as a result of their mentoring experience.

College student leaders, as a group (intervention group + college student leader control group), demonstrated higher generativity than general college students on several measures, but yet college student leaders who do not mentor (college student leader

control group) demonstrated significantly lower generativity than college student leaders who mentor (the intervention group) on generative concern as it relates to passing on knowledge to the next generation as well as generative commitment. One might conclude that the intervention group's "lab" experience perhaps influenced their leadership style and approach. These students not only mentored a young person as part of their "lab" experience, but also received guidance and coaching through weekly project meetings, the NHRI Class, as well as interacting frequently with other student leaders who are also mentoring. Stated another way, these students received unique leadership training and practice through their "lab" experience in the NHRI program. These findings suggest that college student leaders who mentor perhaps *lead* in a different way than their peers. McAdams and de St. Aubin (1998) inquired about the relationship between generativity and leadership, noting that, "It seems intuitively right that some kinds of highly effective leaders owe their success to their generative capacities and inclinations" (p. 489). The mixed methods results from the current study suggest that college student leaders who mentor engage in a different type of leadership in comparison to other college student leaders.

Among the leadership literature, the term 'leadership' does not have a common definition agreed upon by leadership scholars. In fact, landmark leadership scholar Bernard Bass mused, "There are almost as many definitions of leadership as there are persons who have attempted to define the concept" (Wren, 1995, p. 25). A common denominator among many definitions of leadership, however, is the idea of *influence*—all leaders seem to exert some sort of influence on others through their relationships.

Three primary leadership theories examine style of leadership in terms of its influence on followers: (a) charismatic leadership, (b) transformational leadership, and (c) servant leadership. Charisma and its foundation in charismatic leadership explains the phenomenon of how leaders influence followers to sacrifice their self-interest in the name of a higher purpose (Conger & Konungo, 1987; Weber, 1947). Max Weber (1947) used charisma to explain influence based not on formal authority, but rather on follower perceptions that the leader is endowed with exceptional qualities.

Leadership scholar James MacGregor Burns expanded the concept of charismatic leadership and was the first theorist to contrast transforming leadership with transactional leadership in his 1978 book, *Leadership*. Burns (1978) noted that transforming leadership motivates followers by appealing to their values and emotions in an effort to raise their consciousness about issues and mobilize their energy for reform. Transformational leadership raises the level of human conduct, because both leader and follower raise one another to a higher level of motivation and morality.

Servant leaders, in comparison, are considered affirmative builders of better societies while accepting the imperfection of the human condition (Greenleaf, 1970, 1977). Freely chosen by followers, servant leaders ensure that others' highest priority needs are being met and that those served become wiser, freer, and more autonomous. Robert Greenleaf (1970, 1977) is considered the father of servant leadership, and he ascribed greatness to the servant leader, because the servant leader is seen as servant first, leader second. Service to followers is the primary motivation as well as the primary responsibility of servant leaders. This service, ultimately, prepares followers to become servants themselves. The servant leadership style aims to heighten morality in followers.

Charismatic leadership (perception that leader is endowed with exceptional qualities—Weber, 1947), transformational leadership (leader and follower are raised to higher level of motivation and morality—Burns, 1978), and servant leadership (leader is seen as servant first—Greenleaf, 1970, 1977) all operate under the assumption that leaders are figures who are visionary (Graham, 1991). The leader casts a compelling vision, then influences followers to align their self-interest with that vision. Figure 19 graphically depicts this notion.

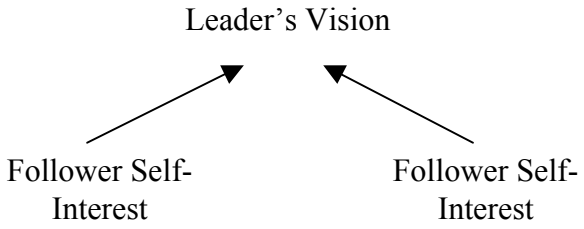

Figure 19. Current leadership theory's view of the leader.

The major distinction between charismatic, transformational, and servant leadership is that charismatic and transformational leadership do not invite moral accountability of their visions and organizational objectives while servant leadership does. Charismatic leaders have highly motivated, but sheep-like followers, while transformational leaders encourage their followers to develop their own skills in order to demonstrate initiative in working toward the leader's goals. Last, servant leaders encourage followers to not only develop their own skills, but also enhance moral reasoning. In this way, followers become independent moral agents who can test the leader's vision and organizational objectives (Graham, 1991).

The mixed methods results from the current study suggest that college student leaders who mentor *lead* in a way contrary to their fellow leaders. They demonstrate additional generative components to their leadership (passing on knowledge to the next

generation and generative commitment) that extend what is currently known about how leaders influence. The qualitative results from the current study suggest that college student leaders who mentor influence others to realize their strengths and challenge the development of those strengths rather than influence others to align their self-interest with the leader's self-interest and corresponding vision. In this generative model of leadership, the follower is revealed his or her own "riches" and realizes his or her *own* self-interest to a greater extent. Figure 20 graphically depicts this notion.

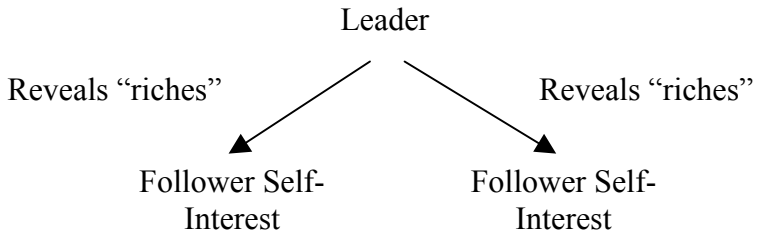

Figure 20. Model of generative leadership.

This model reflects Leffel's (2008) domain of *relational generativity*, which refers to a motive and a capacity to develop strengths in others for whom one cares. Relational generativity involves investing in the strengths development of significant others and can be viewed as: (a) a moral *telos* (to be pursued), (b) a *motive* (to be activated), (c) a *capacity* (to be developed), and (d) an *investment* (to be given).

Leffel (2008) argued that a difference exists between a capacity to *care for* another person and a capacity to *take care of*. Relational generativity describes the process of moving from a capacity to care for to a capacity to take care of. This includes facilitating mutual strengths-development as a goal (or telos), typifying an inner drive (or motive) to take care of others, demonstrating a psychological capacity to embody virtues

such as hope, will, purpose, competence, fidelity, love, care, and wisdom, and investing oneself as an offering for the sake of others.

Leffel's relational generativity concept and the model of generative leadership above certainly draw strong parallels to servant leadership. Greenleaf (1977) contended that servant leaders create a uniquely appropriate role for each follower by drawing on his or her strengths and choosing the right time and place. Yukl (2006) suggested that, "It is only by understanding followers that the leader can determine how best to serve their needs" (p. 342). While one may be tempted to merely extend the confines of servant leadership to include these generative leadership ideas, the quantitative and qualitative results of the current study provide disconfirming evidence of this conclusion.

First, the quantitative phase results revealed that college student leaders who mentor demonstrate higher generativity than other college student leaders in the areas of (a) generative concern as it relates to passing on knowledge to the next generation and (b) generative commitment. Passing on knowledge to the next generation and making decisions that take responsibility for the next generation certainly aim to serve the higher needs of others, indicating servant leadership. Barbuto and Wheeler (2006) identified five distinct dimensions of servant leadership: (a) altruistic calling, (b) emotional healing, (c) wisdom, (d) persuasive mapping, and (e) organizational stewardship. Altruistic calling refers to the leader's deep-rooted desire to make a positive difference in the lives of others and easily relates to the notion of passing on knowledge to the next generation by virtue of revealing others' "riches" to themselves. Organizational stewardship, as another example, strongly reflects the idea of making decisions and setting goals that take responsibility for the next generation (Barbuto & Wheeler, 2006).

In servant leadership, however, the primary intent to serve comes from an altruistic, moral self-concept (Sendjaya & Sorros, 2002). Altrusim and generativity, while similar, are indeed conceptually distinct. Azarow et al. (2003) articulated this notion by indicating that generativity differs from altruism in its scope, temporal orientation, and motivational structure. Generativity's motivational structure blends both agency (self-expression and self-enhancement) and communion (sharing of the self and devotion to others). This notion was reflected in the qualitative phase results. The respondents discussed personal growth from their mentoring experience (learned how to be generative through "lab" context; generativity became "integrated" into who they are and what they do) as well as growth that they fostered in their mentees through significant investment of their time and talent.

In conclusion, leadership theory, to date, is dominated by the idea of the leader being a central visioning figure that works to align the self-interest of the followers with the leader's vision. This is true even in the case of servant leadership. The mixed methods results of the current study suggest that college student leaders who mentor are not necessarily interested in aligning the self-interest of others with themselves, but rather are motivated by the idea of revealing their followers' "riches" to themselves; in other words, helping others to fully realize their own self-interest.

Implication: Generativity and Social Responsibility

The mixed methods findings from the current study offer implications relative to social responsibility. Generativity has been empirically shown to be the most significant predictor of social responsibility in family, work, and community domains, even after controlling for age, social class, and other demographic factors (Rossi, 2001a). Imada

(2004) defined social responsibility as the "ethical and moral obligations of the citizens of a society to each other and to the society itself" (p. 84). Considering that college students who mentor demonstrated higher generativity than general college students in areas of generative concern, generative action, and generative commitment, one might reasonably postulate that these students will likely be more socially responsible throughout their lifetime.

Data results from Rossi's (2001a) study indicated that generativity was the most significant predictor of all four dependent variables of social responsibility (time, money, family, and community). In other words, the higher one scored on the LGS, the more likely he or she was to contribute time and money (dimensions of social responsibility) to both the family and the community (domains of social responsibility). The quantitative results from the current study suggest that college students who mentor will be more likely to contribute time and money toward the communities in which they will live and will contribute time and money toward their families. The qualitative results from the current study suggest that college students who mentor may likely contribute their time and money toward investing in people, recognizing potential in others and fostering growth in that potential.

Considering the predictive linkage between generativity and social responsibility, higher education environments would be prudent to deliberately cultivate generativity among their student populations. Mentoring programs are perhaps one vehicle to consider. Higher education institutions that could successfully cultivate and document higher generativity among its students could make a compelling argument to business and

industry for hiring their graduates. This could impact career placement success rates and ultimately help higher education institutions garner a competitive advantage.

Future Research

The current body of generativity literature maintains that generativity is a midlife construct. In other words, one's generativity "peaks" in midlife. The current study was not aimed to disprove this well-documented theory. However, the results of the current study have documented that young adults, in particular, college students who mentor demonstrate higher generativity than their peers. A longitudinal study could be valuable in examining whether or not this trend continues throughout these individuals' lifetimes. Figure 21 graphically depicts this proposed study. The solid line on the figure suggests the normal developmental progression of generativity throughout a person's lifetime and the dotted line conjectures the developmental progression of generativity throughout a person's lifetime who mentored as a young adult.

Figure 21. Future research study examining generativity trends among those who mentored as young adults.

A second valuable study would be to examine longitudinal data of college students who mentor. Entering freshmen into the NHRI program could be assessed on generativity measures and compared to different peer groups, again, using a MANCOVA or similar analysis. Then, these NHRI students could be reassessed halfway through their mentoring experience as well as at the end. These final scores could be compared to baseline scores (repeated measures MANCOVA) as well compared against different peer groups to assess not only individual generativity growth, but also rates of growth across groups. The results from this future study could lend additional information as to the "seed of generativity" notion as well as provide more confirmatory data regarding the impact of mentoring on generativity.

Future researchers may also find value in extending the literature base presented in the current study to consider Baxter Magolda's (1998) self-authorship theory. Marcia Baxter Magolda has contributed largely to the history and current standing of college student development research, primarily in the area of cognitive structural theories that examine the intellectual development process during one's college years (Evans, Forney, Guido, Patten, & Renn, 2010). Baxter Magolda (1998) extended her own cognitive development theory to examine the influence of combined cognitive, affective, and interpersonal development on self-authorship, which is considered one's internal capacity to define his or her own beliefs, identity, and personal relationships. Utilizing data from informal telephone interviews, Baxter Magolda discovered that her study participants' cognitive development was compounded by their sense-of-self development as well as their interpersonal development. The results of the current study suggest that the intervention group's "lab" experiences (mentoring their junior counselor, weekly project

meetings, the NHRI Class, and interacting with other NHRI students) certainly provided ample and consistent opportunities to engage in interpersonal development as well as to reflect upon that development. Future scholars may benefit from empirical examination of the impact of mentoring on self-authorship.

As stated in the limitations section, the current study only interviewed intervention group students in the qualitative phase. While this was necessary in order to answer the qualitative phase research question, future researchers may find value in comparing qualitative responses in the current study to qualitative responses in the college student leader control group. One may accomplish this by mirroring the methods used in the current study's qualitative phase, but adjusting the qualitative phase research question to, *What meaning do college students ascribe to their experiences with generativity in the context of student leadership activity?*

Other future research studies to consider may include (a) replicating the current study on a similar program at another higher education institution using a mixed methods design, (b) exploring the perspectives of the mentees (junior counselors) using a qualitative phenomenological approach, (c) developing a structural equation model of factors contributing to higher generativity among college student leaders, and (d) assessing the impact of mentoring programs on career placement success rates using a linear regression or some other statistical analysis techniques. These and other potential research studies may prove insightful into the challenge of creating a more socially responsible populace of young adults in higher education soon to be entering the workforce.

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APPENDIX A

Interview Protocol

Interviewee: _____

Junior Counselor/Project Partner: _____

Project: _____

Date, Time, and Location of Interview: _____

Pseudonym: _____

Introduction: I want to thank you for taking the time to be interviewed today. What we discuss will be audio recorded and later transcribed. I will be asking you to review the transcription with the notes I make regarding my understanding of what you say. It is important that I am representing your views. It is also important that the transcription be verbatim so that I do not paraphrase something you said with an incorrect interpretation; therefore, please be prepared to see any "uhs" and "ohs" that may be said. If I use any quotes in the final written paper, those words will not be present.

Project Overview: As you may already know, this study is examining generativity in young adults.

Review of Consent Form: (Have them read and sign consent form if they agree to participate)
I am interested in your thoughts and feelings regarding your NHRI experience. I want to know your perspective, so please feel free to discuss your views and opinions. As the interview progresses, if at any point you need me to clarify something, you have a question, or you'd like to stop the interview, please let me know. There are no right or wrong answers to these interview questions. Are you ready to begin?

1. Tell me about your NHRI experience. What dimensions, incidents, and people intimately connected with your NHRI experience stand out for you?
2. How do you feel about your work in NHRI? What feelings have been generated by the experience?
3. How would you describe your relationship with your junior counselor?
    a. How did the relationship develop?
    b. How would you describe the relationship when you started?

   c. How would you describe the relationship now?

4. Tell me more about your relationship with your junior counselor.

   a. What kinds of things do you do with your junior counselor?

   b. What are you trying to accomplish with your junior counselor?

   c. How do you feel you've influenced his/her development?

5. How has your NHRI experience affected you? What changes do you associate with the experience?

Generativity Definition: In this interview, I am particularly interested in the impact of your NHRI experience on your generativity. If you are unfamiliar, generativity is defined as "primarily the concern in establishing and guiding the next generation."

6. In particular, how has your NHRI experience impacted your generativity? What changes, if any, in your generativity do you associate with your NHRI experience?

7. The results from the first phase of this research revealed that NHRI students are more generative than the general student body in all areas of generative concern, generative action, and generative commitment. In comparison to other college student leaders, NHRI students are more generative in the area of generative concern as it relates to passing on knowledge to the next generation and in the area of generative commitment. What are your reactions to these findings?

   a. What explanation, if any, might your NHRI experience offer to these findings?

Conclusion: This concludes the formal portion of our interview. Is there anything else relevant to your NHRI experience that we have not discussed in this interview?

Thank you for taking the time to interview today. I will contact you when the transcript is finished for your review of its accuracy.

APPENDIX B

Quantitative Measures

Loyola Generativity Scale (McAdams & de St. Aubin, 1992)

Instructions: Please rate yourself on the items listed below. The following items are rated on a 4-point scale ranging from (0) *this statement never applies to me* to (3) *this statement applies to me very often*.

Question	0 This statement never applies to me	1 This statement rarely applies to me	2 This statement sometimes applies to me	3 This statement applies to me very often
1. I try to pass along the knowledge I have gained through my experiences				
2. I do not feel that other people need me				
3. I think I would like the work of a teacher				
4. I feel as though I have made a difference to many people				
5. I do not volunteer or work for a charity				
6. I have made and created things that have had an impact on other people				
7. I try to be creative in most things that I do				
8. I think I will be remembered for a long time after I die				
9. I believe that society cannot be responsible for providing food and shelter for all homeless people				
10. Others would say that I have made unique contributions to society				
11. If I were unable to have children of my own, I would like to adopt children				
12. I have important skills that I try to teach others				
13. I feel that I have done nothing that will survive after I die				
14. In general, my actions do not have a positive effect on others				
15. I feel as though I have done nothing of worth to contribute to others				
16. I have made many commitments to many different kinds of people, groups, and activities in my life				
17. Other people say that I am a very productive person				

18. I have a responsibility to improve the neighborhood in which I live				
19. People come to me for advice				
20. I feel as though my contributions will exist after I die				

Questions 5, 9, 13, 14, and 15 were reverse scored.

Generativity Behavioral Checklist (McAdams & de St. Aubin, 1992)

Fifty-item GBC.

Instructions. Below is a list of specific behaviors or acts. Over the **past two months**, it is likely that you may have performed some of these behaviors. It is also likely that you have not performed many of them during this time. Please consider each behavior to determine whether or not you have performed the behavior during the past two months, and if so, how many times you have performed it during the past two months. For each behavior, provide one of the following ratings:

Write a "**0**" in the blank before the behavior if you have not performed the behavior during the past two months.

Write a "**1**" if you have performed the behavior one time during the past two months.

Write a "**2**" if you have performed the behavior more than once during the past two months.

____ 1. Taught somebody a skill.

____ 2. Served as a role model for a young person.

____ 3. Won an award or contest.

____ 4. Went to see a movie or play.

____ 5. Gave money to a charity.

____ 6. Did volunteer work for a charity.

____ 7. Listened to a person tell me his or her personal problems.

____ 8. Purchased a new car or major appliance (e.g., dishwasher, television set).

____ 9. Taught Sunday School or provided similar religious instruction.

____ 10. Taught somebody about right and wrong, good and bad.

____ 11. Told somebody about my own childhood.

____ 12. Read a story to a child.

____ 13. Babysat for somebody else's children.

____ 14. Participated in an athletic sport.

____ 15. Gave clothing or personal belongings to a not-for-profit organization (such as the "Good Will," "Salvation Army," etc.).

____ 16. Was elected or promoted to a leadership position.

____ 17. Made a decision that influenced many people.

____ 18. Ate dinner at a restaurant.

____ 19. Produced a piece of art or craft (pottery, quilt, woodwork, painting, etc.).

____ 20. Produced a plan for an organization or group outside my own family.

____ 21. Visited a nonrelative in a hospital or nursing home.

____ 22. Read a novel.

____ 23. Made something for somebody and then gave it to them.

____ 24. Drew upon my past experiences to help a person adjust to a situation.

____ 25. Picked up garbage/trash off the street or some other area that is not my property.

____ 26. Gave a stranger directions on how to get somewhere.

____ 27. Attended a community or neighborhood meeting.

____ 28. Wrote a poem or story.

____ 29. Took in a pet.

____ 30. Did something that other people considered to be unique and important.

____ 31. Attended a meeting or activity at a church (<u>not</u> including conventional worship service such as Mass, Sunday morning service, etc.).

____ 32. Offered physical help to a friend or acquaintance (helped them move, fix a car, etc.).

____ 33. Had an argument with a friend or family member.

____ 34. Contributed time or money to a political or social cause.

____ 35. Planted or tended a garden, tree, flower, or other plant.

____ 36. Wrote a letter to a newspaper, magazine, Congressman, etc. about a social issue.

____ 37. Cooked a meal for friends (nonfamily members).

____ 38. Donated blood.

____ 39. Took prescription medicine.

____ 40. Sewed or mended a garment or other object.

____ 41. Restored or rehabbed a house, part of a house, a piece of furniture, etc.

____ 42. Assembled or repaired a child's toy.

____ 43. Voted for a political candidate or some other elected position.

____ 44. Invented something.

____ 45. Provided first aid or other medical attention.

____ 46. Attended a party.

____ 47. Took an afternoon nap.

____ 48. Participated in or attended a benefit or fund-raiser.

____ 49. Learned a new skill (e.g., computer task, musical instrument, welding, etc.).

____ 50. Became a parent (had a child, adopted a child, or became a foster parent).

For the scoring procedure, cross out responses to items 3, 4, 8, 14, 18, 22, 33, 39, 46, and 47. Then, sum the rest of the item responses for the total GBC score.

Personal Strivings (McAdams et al., 1993, adapted from Emmons, 1986)

Instructions: Please write ten sentences, each beginning with "I typically try to…", and each describing a personal striving. Two blank lines will be provided for each striving. Personal strivings will be defined as "the things that you typically or characteristically are trying to do in your everyday life" and/or as the "objectives or goals that you are trying to accomplish or attain."

1. I typically try to…

_____

_____

2. I typically try to…

_____

_____

3. I typically try to…

_____

_____

4. I typically try to…

_____

_____

5. I typically try to…

_____

_____

6. I typically try to…

_____

_____

7. I typically try to…

_____

_____

8. I typically try to…

_____

_____

9. I typically try to…

_____

_____

10. I typically try to…

_____

_____

Demographic Form

Year in School (Circle One): Sophomore Junior Senior

Major: _____

Gender (please check one): _____Male _____Female

G.P.A. Range (please check one):

_____0.0 – 0.99

_____1.0 – 1.49

_____1.5 – 1.99

_____2.0 – 2.49

_____2.5 – 2.99

_____3.0 – 3.49

_____3.5 – 4.0

APPENDIX C

Informed Consent Forms

University of Nebraska Lincoln

COLLEGE OF EDUCATION AND HUMAN SCIENCES
Department of Educational Administration

INFORMED CONSENT FORM

IRB #:

Title of Project: Generativity in young adults.

Purpose of Study: The purpose of this study is to examine generativity attitudes and behaviors among UNL college students. You must be 19 years of age or older to participate. You were invited to participate in this study, because you are a UNL student and you are involved in a campus student organization.

If you have already completed these surveys as part of your involvement in a campus student organization, you do not need to complete these surveys again.

Procedures: The three surveys and demographic form you will be asked to fill out will require approximately 10 – 15 minutes of your time. Further, you will be asked to read this Informed Consent Form. The information you share on these surveys and on the demographic form will be held in strict confidence.

Risks and/or Discomforts: There are no known risks or discomforts associated with this study. In the event of any problems resulting from participation in this study, psychological treatment is available on a sliding fee schedule at the UNL Psychological Consultation Center at 402-472-2351.

Benefits: There may be no direct benefit to you as a participant in this research; however, you may find the survey questions helpful in self-understanding. Additionally, the information you provide will contribute to improving the developmental opportunities offered to UNL students in the future.

Confidentiality: Any information obtained during this study which could identify you will be kept strictly confidential. Your name will not be included in the project or other documents. The data will be stored in a locked cabinet in the principal investigator's office and will only be seen by the investigators until the completion of the study. The information obtained in this study may be published in academic journals or presented at academic meetings, but the data will be reported as aggregate data.

Compensation: Participation in this study will qualify you for a raffle for a $25 Valentino's gift card. Six hundred students have been asked to participate in this study. Your chance of winning the raffle is based on the number of students who participate.

141 Teachers College Hall / P.O. Box 880360 / Lincoln, NE 68588-0360 / (402) 472-3726 / FAX (402) 472-4300

Opportunity to Ask Questions: If you have any questions about this research, you may call the principal investigator, Lindsay Hastings, at any time at 402-472-3477. You may ask questions before, or during the study, either by contacting the principal investigator at the telephone number above or by e-mail: lhastings2@unl.edu. If you have any questions concerning your rights as a research subject that have not been answered by the principal investigator or to report any concerns about the study, you may contact the University of Nebraska-Lincoln Institutional Review Board at 402-472-6965.

Freedom to Withdrawal: Participation in this research project is voluntary and you are free to decide not to participate in this study or to withdraw at any time without adversely affecting your current and/or future relationship with the investigators, the campus student organization with which you are affiliated, the staff of these organizations, or the University of Nebraska-Lincoln. In particular, for those of you involved in NHRI, your participation will, in no way, negatively impact your current and/or future relationship with NHRI, the NHRI Director, and NHRI Staff. Your decision will not result in any loss of benefits to which you are otherwise entitled.

Consent, Right to Receive a Copy: You are voluntarily making a decision whether or not to participate in this research study. By completing the surveys, you are showing your consent. You may retain a copy of this consent form for your records.

Name and Telephone Numbers of Investigators:

Lindsay J. Hastings, Ph.D. Student, Principal Investigator	*Office: 402-472-3477*
James V. Griesen, Ph.D., Secondary Investigator	*Office: 402-472-3725*

University of Nebraska Lincoln

COLLEGE OF EDUCATION AND HUMAN SCIENCES
Department of Educational Administration

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If you have already completed these surveys as part of your involvement in a campus student organization, you do not need to complete these surveys again.

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Risks and/or Discomforts: There are no known risks or discomforts associated with this study. In the event of any problems resulting from participation in this study, psychological treatment is available on a sliding fee schedule at the UNL Psychological Consultation Center at 402-472-2351.

Benefits: There may be no direct benefit to you as a participant in this research; however, you may find the survey questions helpful in self-understanding. Additionally, the information you provide will contribute to improving the developmental opportunities offered to UNL students in the future.

Confidentiality: Any information obtained during this study which could identify you will be kept strictly confidential. Your name will not be included in the project or other documents. The data will be stored in a locked cabinet in the principal investigator's office and will only be seen by the investigators until the completion of the study. The information obtained in this study may be published in academic journals or presented at academic meetings, but the data will be reported as aggregate data.

Compensation: Participation in this study will qualify you for a raffle for a $25 Valentino's gift card. Six hundred students have been asked to participate in this study. Your chance of winning the raffle is based on the number of students who participate.

141 Teachers College Hall / P.O. Box 880360 / Lincoln, NE 68588-0360 / (402) 472-3726 / FAX (402) 472-4300

Opportunity to Ask Questions: If you have any questions about this research, you may call the principal investigator, Lindsay Hastings, at any time at 402-472-3477. You may ask questions before, or during the study, either by contacting the principal investigator at the telephone number above or by e-mail: lhastings2@unl.edu. If you have any questions concerning your rights as a research subject that have not been answered by the principal investigator or to report any concerns about the study, you may contact the University of Nebraska-Lincoln Institutional Review Board at 402-472-6965.

Freedom to Withdrawal: Participation in this research project is voluntary and you are free to decide not to participate in this study or to withdraw at any time without adversely affecting your current and/or future relationship with the investigators, the instructor of your course, or the University of Nebraska-Lincoln. Your decision will not result in any loss of benefits to which you are otherwise entitled.

Consent, Right to Receive a Copy: You are voluntarily making a decision whether or not to participate in this research study. By completing the surveys, you are showing your consent. You may retain a copy of this consent form for your records.

Name and Telephone Numbers of Investigators:

Lindsay J. Hastings, Ph.D. Student, Principal Investigator	*Office: 402-472-3477*
James V. Griesen, Ph.D., Secondary Investigator	*Office: 402-472-3725*

University of Nebraska Lincoln

COLLEGE OF EDUCATION AND HUMAN SCIENCES
Department of Educational Administration

INFORMED CONSENT FORM

IRB #:

Title of Project: Generativity in young adults.

Purpose of Study: The purpose of this study is to examine generativity attitudes and behaviors among UNL college students. You must be 19 years of age or older to participate. You were invited to participate in this study because you are a UNL student and a student participant in Nebraska Human Resources Institute (NHRI).

Procedures: The semi-structured interview to discuss your experiences in NHRI will require approximately 60 minutes of your time. Further, you will be asked to read this Informed Consent Form, allowing the interview to be audio taped. The information you share within the interview will be held in strict confidence. The interview will take place either in the ALEC Conference Room (300 Ag Hall) or in the NHRI Student Meeting Space (ACB, Room 5). Again, the interview will be audio taped to ensure that all responses are recorded.

Risks and/or Discomforts: There are no known risks or discomforts associated with this study. In the event of any problems resulting from participation in this study, psychological treatment is available on a sliding fee schedule at the UNL Psychological Consultation Center at 402-472-2351.

Benefits: There may be no direct benefit to you as a participant in this research; however, you may find the interview helpful in self-understanding. Additionally, the information you provide will contribute to improving the developmental opportunities offered to NHRI students and UNL students in the future.

Confidentiality: Any information obtained during this study which could identify you will be kept strictly confidential. Your name will not be included in the project or other documents. A pseudonym will be used in place of your name in transcripts of the interview and if any responses are cited in any other documents. The data will be stored in a locked cabinet in the principal investigator's office and will only be seen by the investigators until the completion of the study. The information obtained in this study may also be published in academic journals or presented at academic meetings, but the data will be reported as aggregate data.

Compensation: Participation in this study will qualify you for a raffle for a $25 Valentino's gift card. Six hundred students have been asked to participate in this study. Your chance of winning the raffle is based on the number of students who participate.

141 Teachers College Hall / P.O. Box 880360 / Lincoln, NE 68588-0360 / (402) 472-3726 / FAX (402) 472-4300

Opportunity to Ask Questions: If you have any questions about this research, you may call the principal investigator, Lindsay Hastings, at any time at 402-472-3477. You may ask questions before, or during the study, either by contacting the principal investigator at the telephone number above or by e-mail: lhastings2@unl.edu. If you have any questions concerning your rights as a research subject that have not been answered by the principal investigator or to report any concerns about the study, you may contact the University of Nebraska-Lincoln Institutional Review Board at 402-472-6965.

Freedom to Withdrawal: Participation in this research project is voluntary and you are free to decide not to participate in this study or to withdraw at any time without adversely affecting your current and or future relationship with the investigators, NHRI, the NHRI Director, NHRI Staff, or the University of Nebraska-Lincoln. Your decision will not result in any loss of benefits to which you are otherwise entitled.

Consent, Right to Receive a Copy: You are voluntarily making a decision whether or not to participate in this research study. By completing the interview, you are showing consent. You may retain a copy of this consent form for your records.

_____ Initial if you agree to be audio recorded during the interview

Name and Telephone Numbers of Investigators:

Lindsay J. Hastings, Ph.D. Student, Principal Investigator	*Office: 402-472-3477*
James V. Griesen, Ph.D., Secondary Investigator	*Office: 402-472-3725*

APPENDIX D

Sample E-mail Scripts

Leadership Control Group Contact E-mail Script for Phase 1

(Today's Date)

Dear [Name of Student Group Leader],

My name is Lindsay Hastings, and I am the Director of Nebraska Human Resources Institute as well as a Ph.D. student in the Education Administration Department here at UNL. My advisor, Dr. Jim Griesen, and I are conducting a research study examining generativity attitudes and behavior among UNL college students, in particular, college student leaders (IRB #: 20110411596EP). If possible, I would like to come to one your student meetings and survey your students.

The three surveys and demographic form that the students will be asked to complete will require approximately 10 – 15 minutes of their time. Further, the students will be asked to read and provide consent on an Informed Consent letter. The information shared on these surveys and demographic form will be held in strict confidence.

If you would be interested in helping us with this research study by providing access to your students, please respond to this e-mail by providing some dates and times when your students meet that would be available.

If you have questions regarding the study, feel free to contact me at lhastings2@unl.edu or at 402-472-3477 at any time.

Dr. Griesen and I sincerely thank you for considering assisting us in this research!

Sincerely,

Lindsay J. Hastings
Director, Nebraska Human Resources Institute
Ph.D. Student, Principal Investigator

General Student Control Group Professor Contact E-mail Script for Phase 1

Hi Dr. Schmidt,

I just left you a voicemail about potentially researching your students, so disregard the message if you read this first. Dr. Jim Griesen (my doctoral advisor) and I are conducting a research study examining generativity attitudes and behaviors among UNL college students (generativity refers to concern in establishing and guiding the next generation)

(IRB #: 20110411596EP). If possible, I would love to come to one of your classes and survey your students.

I should be able to be in and out within 15 minutes, and the information shared on the generativity surveys and demographic form will be held in strict confidence.

If you would be interested in helping us with this research study, send me some dates and times that would be available.

If you have any questions regarding the study before I come, feel free to contact me at lhastings2@unl.edu or at 402-472-3477 at any time.

Dr. Griesen and I sincerely thank you for considering assisting us in this research!

Sincerely,

Lindsay J. Hastings
Ph.D. Student, Education Administration, Principal Investigator

E-mail Script for Phase 2 – Invitation to Participate

IRB #: 20110411596EP

(Today's Date)

Dear (Name of NHRI Student),

As an NHRI student, you have been invited to participate in the second phase of Lindsay Hastings' research study examining generativity attitudes and behavior among UNL college students.

An interview to discuss your NHRI experience will require approximately 60 minutes of your time. The interview will be one on one with Lindsay and will be located in either the ALEC Conference Room (300 Ag Hall) or in the NHRI Student Meeting Space (ACB, Room 5). Additionally, the interview will be audio taped to ensure that all responses are recorded. Questions will focus on your experience with your junior counselor or project partner. If you are able to assist Lindsay with this research, please reply to this message indicating your intention. Lindsay will contact you by e-mail to set up the date, time, and location of the interview.

Any information obtained during this study which could identify you will be kept strictly confidential. Your name will not be included in the project or other documents. A pseudonym will be used in place of your name in transcripts of the interview and if any responses are cited in any other documents. The data will be stored in a locked cabinet in the principal investigator's office and will only be seen by the investigators until the

completion of the study. The information obtained in this study may be published in academic journals or presented at academic meetings, but the data will be reported as aggregate data.

There are no known risks or discomforts associated with this study. In the event of any problems resulting from participation in this study, psychological treatment is available on a sliding fee schedule at the UNL Psychological Consultation Center at 402-472-2351.

If you have any questions about this research, you may call the principal investigator, Lindsay Hastings, at any time at 402-472-3477. You may ask questions before, or during the study, either by contacting Lindsay at the telephone number above or by e-mail: lhastings2@unl.edu. If you have any questions concerning your rights as a research subject that have not been answered by the principal investigator or to report any concerns about the study, you may contact the University of Nebraska-Lincoln Institutional Review Board at 402-472-6965.

Participation in this research project is voluntary and you are free to decide not to participate in this study or to withdraw at any time without adversely affecting your current and/or future relationship with the investigators, NHRI, the NHRI Director, NHRI Staff, or the University of Nebraska-Lincoln. Your decision will not result in any loss of benefits to which you are otherwise entitled.

There may be no direct benefit to you as a participant in the research; however, the information you provide will contribute to help determine effective developmental opportunities for college students in the future.

I hope you will consider assisting Lindsay in this research.

Sincerely,

Amanda Crook
NHRI Graduate Assistant

E-mail Script to Determine the Date, Time, and Location of the Interview—Phase 2

IRB #: 20110411596EP

(Today's Date)

Dear (Name of NHRI Student),

Thank you for agreeing to participate in this research project intended to examine generativity attitudes and behavior among UNL college students. If you have any questions regarding the research project or what is required of you as a participant, feel free to e-mail me your questions or call me at 402-472-3477.

I am e-mailing you to determine your availability the week of Monday, (month, date), so we can schedule a 60-minute time block in order to complete the informed consent form and conduct the interview. I am available during the following times that week:… Please respond by indicating your availability. Once you indicate your availability, I will send you an e-mail confirming our interview date, time, and location.

The one-on-one interview with me will likely occur in one of two private locations: (a) the ALEC Conference Room (300 Ag Hall) or (b) the NHRI Student Meeting Space (ACB, Room 5). The date and time you choose may determine which room will be available. If both rooms are available and you have a preference, please indicate your preference.

If something comes up and you need to reschedule, just send me an e-mail or give me a call.

I look forward to meeting with you! Thank you, again, for agreeing to participate!

Lindsay

APPENDIX E

In-Person Scripts

Sample In-Person Script for Phase 1

As a UNL student, you have been invited to participate in a research study examining generativity attitudes and behavior among UNL college students. Generativity refers to your attitudes and behaviors toward the next generation. You must be 19 years of age or older in order to participate.

The survey and demographic form you will be asked to fill out will require approximately 10 – 15 minutes of your time. Further, you will be asked to read an Informed Consent letter. The information you share on this survey and demographic form will be held in strict confidence.

Participation in this study will qualify you for a raffle for a $25 Valentino's gift card. Six hundred students have been asked to participate in this study. Your chance of winning the raffle is based on the number of students who participate.

Your participation in this study is strictly voluntary. You are free to decide not to participate or to withdraw at any time without adversely affecting your relationship with the investigators of this study, your relationship with your instructor, or your relationship with the University of Nebraska-Lincoln.

I will pass out the informed consent form as well as the survey packet. Please read the informed consent form and, should you decide to participate, begin completing the survey and demographic form. You are not required to sign and return the consent form. You will demonstrate your consent by completing the surveys.

Once you have completed the survey, please return them to me, and you can add your name to the raffle drawing for the $25 Valentino's gift card!

If you have already completed this survey as part of your involvement in a campus student organization and/or you choose to not complete the survey, you have the option of leaving early.

If you have questions regarding the study, feel free to talk with me in person. Otherwise, my contact information is on the informed consent form.

We sincerely thank you for considering assisting us in this research!

Verbal Consent Script for Phase 2

Hi (Name of NHRI Student)!

Thank you for agreeing to meet with me today. As you read from Amanda's e-mail, you have been invited to participate in the second phase of my research examining generativity behaviors and attitudes among UNL college students. This phase is an interview phase, which will involve me asking you questions regarding your NHRI experience. This interview should last approximately one hour. Prior to beginning this interview, I would like for you to review and sign an informed consent form.

To highlight some of what is in the informed consent letter, the interview will be audio taped to ensure that all responses are recorded. Any information you provide during this study which could identify you will be kept strictly confidential. Your name will not be included in the project or other documents. In fact, a pseudonym will be used in place of your name in transcripts of the interview and if any responses are cited in any other documents. The data will be stored in a locked cabinet in my office and will only be seen by the investigators until the completion of the study.

You are free to decide not to participate in this study or to withdraw at any time without adversely affecting your current and/or future relationship with the investigators, NHRI, the NHRI Director, NHRI Staff, or UNL.

Thank you, again, for agreeing to meet with me today!

APPENDIX F

Interview Validation Form

Title of Project: Generativity in young adults. (IRB #: 20110411596EP)

Dear Research Participant,

Please review the attached transcript of our recent interview regarding generativity and your NHRI experiences. Feel free to note all content errors that you find in order make all of the information as accurate as possible. Also, indicate your level of approval for your part in the project by placing an "X" on the appropriate statement below. Thank you!

_____ I approve of the interview transcript without reviewing it.

_____ I approve of the interview transcript without changes.

_____ I approve of the interview transcript with noted changes.

_____ I do not approve of the interview transcript.

Please provide your signature below. If you are receiving this form electronically, typing your name below and typing in the date will constitute as your signature and date.

_____
(Signature of Research Participant)

_____
(Date)

Return this form to Lindsay Hastings either in person or by e-mail at lhastings2@unl.edu.

Sincerely,

Lindsay Hastings, Principal Investigator

APPENDIX G

Peer Review

University of Nebraska Lincoln

COLLEGE OF EDUCATION AND HUMAN SCIENCES
Department of Educational Administration

Peer Review of Qualitative Phase

The following is a summary of my peer review completed on the qualitative phase of Lindsay Hastings' dissertation research. The research question for the qualitative phase was presented as, "What meaning do college students ascribe to their experiences with generativity in the context of mentoring?"

Review steps completed by this reviewer:

1. Became familiar with the purpose of the study, the overall research questions, and the particular purpose and research questions for the qualitative phase.

2. Reviewed sample interview transcripts and met with the researcher to verify coding.

3. Examined the thematic analysis and the researcher interpretations and verified that they were consistent with the sample transcripts reviewed.

Following review of these documents, I met with the researcher to discuss my assessment of the status of her study, in particular its qualitative phase, including coding procedures and thematic findings. From this review, I consider this study's qualitative phase to be well designed and thorough. I believe the coding procedures to be an accurate representation of the research participants' experiences. Furthermore, from my review of the process employed by this researcher, this study's qualitative phase appears to have been conducted in an ethical manner using procedures and protocols reflective of rigorous qualitative research.

Signed this 20th day of January, 2012,

JWalahoski

Jill S. Walahoski
Peer Reviewer

141 Teachers College Hall / P.O. Box 880360 / Lincoln, NE 68588-0360 / (402) 472-3726 / FAX (402) 472-4300