

Generativity and Socially Responsible Leadership Among College Student Leaders Who Mentor

Abstract

The current study examined and explained the relationship between generativity and socially responsible leadership using an explanatory sequential mixed methods design. The first, quantitative phase examined the predictive relationship between generativity and socially responsible leadership among 82 college student leaders who mentor at a four-year, Midwestern, land-grant university using multiple regression. The second, qualitative phase used a phenomenological design to explain the quantitative results by conducting semi-structured interviews among a sub-sample (n=9) of the quantitative phase participants. Results from the current study advance leadership research in social change as well as advance instruction by helping leadership educators demonstrate their outcomes related to generativity and social responsibility.

Introduction

Higher education institutions and educators within those institutions are increasingly called upon to develop socially responsible leaders (Dugan & Komives, 2007). The Council for the Advancement of Standards in Higher Education (CAS), the Association of American Colleges & Universities (AAC&U), NASPA: Student Affairs Administrators in Higher Education, ACPA: College Student Educators International, disciplinary accreditor members of the Council for Higher Education Accreditation (CHEA), the National Association of Colleges and Employers (NACE), and the Degree Qualification Profile (DQP), for example, all recommend student learning outcomes related to the development of leadership and social responsibility (Adelman, Ewell, Gaston, & Schneider, 2011; AAC&U & NLC, 2007; CAS, 2015; Dreschsler Sharp, Komives, & Fincher, 2011; NASPA/ACPA, 2004;

NACE, 2016).

Several strains of K – 12 and higher education research have confirmed mentoring's utility in developing leadership, particularly socially responsible leadership (Campbell, Smith, Dugan, & Komives, 2012; Collins-Shapiro, 2006; Dugan & Komives, 2007; Dugan & Komives, 2010; Dziczkowski, 2013; Garcia, Huerta, Ramirez, & Patron, 2017; Hancock, Hyjer Dyk, & Jones, 2012; Hastings, Griesen, Hoover, Creswell, & Dlugosh, 2015; Komives & Collins-Shapiro, 2006; Komives, Longerbeam, Mainella, Osteen, & Owen, 2009; Priest & Donley, 2014; Shalka, 2016; Thompson, 2006). Different types of mentoring experiences produce diverse leadership development outcomes, however. For example, while faculty mentoring can be expected to impact most leadership values associated with the Social Change Model (SCM; Higher Education Research

Institute, 1996) ranging from *Consciousness of Self to Controversy with Civility*, peer mentoring can be expected to fill gaps based upon its documented association with leadership values such as Commitment and Collaboration (Dugan & Komives, 2007; Dugan & Komives, 2010). Recent research on college student leaders who mentor revealed a significantly higher level of generativity when compared against their peers (Hastings et al., 2015). Generativity refers to “primarily the concern in establishing and guiding the next generation” (Erikson, 1950, 1963, p. 267) and has emerged as the strongest predictor of social responsibility (Rossi, 2001a), indicating that students who exhibit notable care for establishing and guiding the next generation are more likely to spend their time and money building a strong family and a strong community.

While previous research studies (i.e. Hastings et al., 2015; Rossi, 2001a) point to a relationship between generativity and socially responsible leadership and other studies have documented a significant association between mentoring and socially responsible leadership (Barnes, 2014; Dugan & Komives, 2010), there has not been a methodical comparison of one sample of mentors’ socially responsible leadership scores with the same sample’s generativity scores. The purpose of this study was to examine and explain the relationship between the two concepts through systematic investigation using an explanatory sequential mixed methods design. The first, quantitative phase examined the predictive relationship between generativity and socially responsible leadership among college student leaders who mentor at a four-year, Midwestern, land-grant university using multiple regression. The second, qualitative phase used a phenomenological design to explain the quantitative results by conducting semi-structured interviews among a sub-sample of the quantitative phase participants. Understanding and explaining

the predictive relationship between generativity and socially responsible leadership will advance leadership research in social change and community development. Additionally, these research results will help leadership educators better demonstrate their outcomes related to generativity and social responsibility, which is increasingly important as demands for accountability rise (Deming & Figlio, 2016; Reinelt & Russon, 2003; Salmi, 2015).

Literature Review and Theoretical Framework

Generativity. Generativity has been a focus of developmental theory for decades (Browning, 1973; Gruen, 1964; Kotre, 1984; McAdams, 1985; McAdams & Logan, 2004; McAdams, 2001). Erikson, often believed to be the first theoretician to write an account of generativity (Wakefield, 1998), wrote of the concept as the seventh phase of eight successive stages of psychosocial development (Kotre, 1984) in which a midlife adult either seeks to create and leave a legacy that will live on after death, labeled generativity, or reverts to increased self-centeredness, labeled stagnation (Erikson, 1950, 1963). When individuals embrace generativity, most commonly expressed through parenthood (Erikson, 1964; McAdams, 2001; Erikson, 1950, 1963), teaching (Kotre, 1984), sharing cultural understanding (Kotre, 1984; Leffel, 2008), mentoring (Azarow, Manley, Koopman, Platt-Ross, Butler, & Spiegel, 2003) and leadership (Huta & Zuroff, 2007), they demonstrate increased levels of psychological well-being (Ochse & Plug, 1986; Serrat, Villar, Giuliani, & Zacarés, 2016), life satisfaction (Adams-Price, Nadorff, Morse, Davis, & Stearns, 2018, Grossbaum & Bates, 2002; Huta & Zuroff, 2007), work satisfaction (Ackerman, Zuroff, & Moskowitz, 2000), and positive affectivity (Ackerman et al., 2000; Huta & Zuroff, 2007; McAdams & Logan, 2004). In addition to the personal benefits of increased generativity, society also relies on generativity. Without the generative

individuals through parenting, teaching, identity and morality formation, leadership, and creations that serve others (Azarow et al., 2003; Browning, 1973; Erikson, 1964; Imada, 2004; Wakefield, 1998), "our communities would grind to a halt" (Huta & Zuroff, 2007, p. 47).

Recall that generativity was identified as the strongest predictor of social responsibility (Rossi, 2001a), indicating that the more generative a person is, the more likely he or she will demonstrate social responsibility. Rossi (2001a) researched domains and dimensions of social responsibility among 3,032 respondents (aged 25 to 74) using the Midlife Development in the United States (MIDUS) survey. Results identified generativity as the most significant predictor of all four dependent variables of social responsibility (time, money, family, and community). To further clarify, the higher a respondent's generativity score, the higher likelihood of time and money (dimensions of social responsibility) contributions to both family and community (domains of social responsibility). Considering generativity's relationship with social responsibility, what about generativity's role in developing socially responsible leadership?

Socially Responsible Leadership. The Social Change Model (SCM) is a model of leadership development designed to facilitate positive social change as well as to enhance student self-knowledge and leadership competence (Higher Education Research Institute, 1996). In higher education, SCM is considered the most widely used student leadership development model (Haber & Komives, 2009), thus making it most relevant to this study's purpose and population. SCM positions leadership as a "purposeful, collaborative, values-based process that results in positive social change" and identifies three groups of leadership values, namely individual, group, and community/society (Dugan & Komives, 2007, p. 9). Individual-level values include Consciousness of Self, Congruence, and Commitment; group-level values include Collaboration, Common Purpose, and Controversy with Civility; and community/society-level value includes Citizenship. Collectively, these

values contribute to social Change for the common good, the eighth value associated with SCM (Dugan & Komives, 2010). Tyree (1998) developed an instrument, the Socially Responsible Leadership Scale (SRLS), designed to measure socially responsible leadership in college students by measuring the values associated with SCM. Items for the test were centered around the eight constructs of SCM.

SCM has served as the theoretical foundation for the Multi-Institutional Study of Leadership (MSL), a national study designed to examine which factors develop leadership capacity in college students conducted with over 50 higher education institutions representing 25 states (Dugan & Komives, 2007). Hierarchical multiple regressions conducted on the data from seniors ($n = 14,252$) revealed the importance of mentoring to developing socially responsible leadership (Dugan & Komives, 2010). Faculty mentoring emerged as one of the top three predictors across all SCM values, with the exception of Citizenship and Collaboration. Peer mentoring filled in the gaps by emerging as a significant predictor for Citizenship, Collaboration, and Commitment (Dugan & Komives, 2010). But what is it about mentoring that develops socially responsible leadership? And should we expect a similar finding when the college students are the mentors as opposed to the mentees?

Mentoring, Generativity, and Socially Responsible Leadership in College Students. Hastings et al. (2015) conducted a mixed methods study assessing generativity levels amongst 273 college students at a four-year, public university. MANCOVA results in the quantitative phase indicated that college student leaders who mentor demonstrated significantly higher generativity than other college student leaders and general college students. Phenomenological results from interviews with nine mentoring students during the follow-up qualitative phase revealed that while a "seed of generativity" may have already been planted, their mentoring experience served as a "lab" for learning how to be generative (p. 651). Barnes (2014) compared the SRLS scores of college student leaders who mentor ($N = 119$) to MSL national averages, results of which indicated that college

student leaders who mentor demonstrated significantly higher capacity for socially responsible leadership along all eight values of the SCM. Considering mentoring's association with generativity (Hastings et al., 2015), generativity's predictive relationship with social responsibility (Rossi, 2001a), and mentoring's association with socially responsible leadership (Barnes, 2014; Dugan & Komives, 2010), one could reasonably argue that the development of generativity perhaps explains why mentoring demonstrates a significant association with socially responsible leadership.

While previous research studies (i.e. Barnes, 2014; Dugan & Komives, 2010; Hastings et al., 2015; Rossi, 2001a) point to suggested relationships between mentoring, generativity, and/or socially responsible leadership, there has not been a methodical comparison of one sample of college student mentors' socially responsible leadership scores with the same sample's generativity scores. The purpose of the current mixed methods study serves to fill this existing gap by examining and explaining the relationship between generativity and socially responsible leadership among college student leaders who mentor. Research questions for each phase are outlined below:

Quantitative phase: To what extent does generativity predict socially responsible leadership after statistical adjustment for gender?

Qualitative phase: What meaning do college student leaders who mentor ascribe to their experiences with generativity and socially responsible leadership in the context of mentoring?

Mixed methods: How do the qualitative results explain the quantitative outcomes?

Methods

Figure 1 outlines the explanatory sequential mixed methods design utilized in this study. In this design, the researcher collects both quantitative and qualitative data sequentially, with one form of data playing a supportive role to the other (Creswell & Plano Clark, 2018). The supporting qualitative data, in the current study, was collected after the quantitative phase. The qualitative data collected in response to the quantitative results allowed important findings to surface that otherwise might have been missed by the quantitative instruments alone. The rationale for integrating both types of data is that the quantitative results need enhancing in order to be fully understood. Neither quantitative nor qualitative methods alone will be sufficient to completely capture the predictive capacity of generativity on socially responsible leadership and to fully describe the influence of mentoring on the relationship between generativity and socially responsible leadership.

The first, quantitative phase utilized multiple regression because the intent of the analysis was to examine the predictive relationship between generativity and socially responsible leadership among college student leaders who mentor. Additionally, the intent of the current study was to generalize information obtained from the sample to the larger population of college student leaders; thus, utilizing statistical inference was important. The second, qualitative phase utilized phenomenology to further extend the quantitative results by

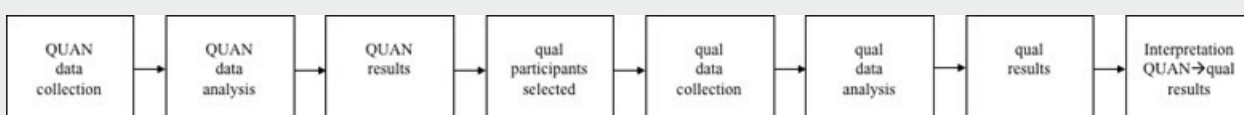


Figure 1. Explanatory sequential mixed methods design (adapted from Creswell & Plano Clark, 2018).

explaining the impact of mentoring on the predictive relationship between generativity and socially responsible leadership among college student leaders who have shared experience with mentoring.

Sampling Procedure. Participants for the quantitative phase were undergraduate students attending a four-year, Midwestern, land-grant university who participate in a leadership mentoring program. College student participants in the leadership mentoring program are selected on the basis of demonstrating leadership talent and are paired in one-to-one mentoring relationships with K – 12 students in the local community who have been identified by their schools as demonstrating significant leadership talent and potential. The qualitative phase sample was selected from the quantitative phase participants who demonstrated high, mid-level, and low socially responsible leadership and generativity scores.

Sample size requirement was calculated based on Tabachnick and Fidell's (2013) recommendation of $N \geq 50 + 8m$ where m is the number of independent variables (IVs). Since three indicators of generativity were used and one gender variable, a sample size of 82 was required in order to enable accurate and reliable statistical judgments.

Data Collection. Quantitative phase data were collected by administering the Loyola Generativity Scale (LGS), Generativity Behavior Checklist (GBC), open-ended reports of personal strivings (measure of generative commitment), the Socially Responsible Leadership Scale (SRLS), and a demographic form to capture respondent gender data. Eighty-seven students involved in the aforementioned leadership mentoring program consented to participate in the study. The administration of LGS, GBC, and open-ended reports of personal strivings to measure generativity follow recommended measures from seminal generativity studies (McAdams & de St. Aubin, 1992; McAdams, de St. Aubin, & Logan, 1993).

The Loyola Generativity Scale (LGS) is a 20-item self-report scale designed to primarily measure individual differences in generative concern. The

LGS utilizes four-point Likert-type response anchors (0=Statement never applies to you, 3=Statement applies to you very often), with items categorizing into five subscales: (a) passing on knowledge to the next generation, (b) making significant contributions for the betterment of one's community, (c) doing things that will have an enduring legacy, (d) being creative and productive, and (e) caring for and taking responsibility for other people. High internal reliability has been documented with the LGS (Cronbach Alpha for adult sample = .84; Cronbach Alpha for college sample = .83 in McAdams & de St. Aubin, 1992). Each item demonstrated relatively (a) wide response variability, (b) strong positive association with the total LGS score, (c) strong positive association with external generativity measures (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 association with Ochse and Plug's (1986) Social Desirability (SD) scale (discriminant validity) (McAdams & de St. Aubin, 1992). Additionally, the LGS exhibited reasonably high test-retest reliability ($r = .73$ over a three-week time interval, McAdams et al., 1993). With regard to its use with a younger population, Lawford, Pratt, Hunsberger, and Pancer (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.

The Generativity Behavior Checklist (GBC) is a 50-item objective self-report intended to measure real-life generativity acts. Forty items measure generative acts while 10 are considered fillers (McAdams & de St. Aubin, 1992). Each item is rated on a scale from

0-2 indicating the frequency of each generative action during 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 (McAdams & de St. Aubin, 1992). Scores on the GBC revealed positive and significant correlations with LGS scores ($r = .59, p < .001$, McAdams & de St. Aubin, 1992; $r = .53, p < .001$, McAdams et al., 1993; $r = .46, p < .001$, Hart, McAdams, Hirsch, & Buer, 2001).

Adapted from Emmons (1986), open-ended reports of personal strivings is a data collection procedure designed to assess generative commitment. Respondents are prompted to write ten sentences, each beginning with "I typically try to..." that describe a personal striving. A personal striving is 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 respondent's list of ten strivings is then 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) analysis also revealed a significant, positive association between personal strivings scores and 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).

The SRLS consists of 68 items that load to eight scales, each of which correspond with a value of the social change model. The SRLS measure assesses the knowledge of, attitudes about, and skills for using the eight constructs of socially responsible leadership with Likert-type response options ranging from 1 = Strongly Disagree to 5 = Strongly Agree (Tyree, 1998). Internal reliabilities for each scale ranged from .69 to .92, and Cronbach alphas for each scale ranged from

.71 to .90 (Dugan, 2006a, 2006b).

Gender demographic data were collected based upon the results of Dugan's (2006b) study which revealed women scoring significantly higher on seven out of eight SCM value constructs than men.

Qualitative phase data were collected in the form of in-depth, semi-structured interviews. The quantitative results were organized to create a typology within the quantitative sample of: (a) high generativity and socially responsible leadership, (b) mid-level generativity and socially responsible leadership, and (c) low generativity and socially responsible leadership. A relatively equal number of respondents representing the continuum of high, mid-level, and low generativity and socially responsible leadership groups were recorded and solicited for an interview. Thirteen quantitative phase participants were contacted for an interview, and nine consented. Since the qualitative data were intended to serve a secondary role to the quantitative data, themed response patterns from nine qualitative participants served an important role in elucidating the quantitative findings.

Guiding descriptive and structural questions were prepared for the interview based upon Moustakas's (1994) general interview guide and the quantitative results, but leads presented by the respondents were followed. Respondents were asked about their leadership mentoring experiences, then were given the definitions of generativity and socially responsible leadership. Respondents were asked about their experiences with generativity and socially responsible leadership in the context of their mentoring experiences. The final interview questions ascertained the respondent's view of the relationship between generativity and socially responsible leadership and the influence of mentoring on said relationship.

Data Analysis. Quantitative phase data were entered into SPSS v. 23. Outliers were examined via z-scores (univariate) and Mahalanobis d (multivariate) calculations. Missing data rates overall were at or below five percent, thus missing data values were

handled by using both listwise and pairwise deletion. Listwise deletion is a form of deletion that deletes an entire entry from analysis if any data points are missing. Pairwise deletion is a form of deletion where the participant's data points that are present are used for analysis on a variable, but the participant is not used to analyze a variable for which data points are missing. In this study, four participants' responses were listwise deleted because they contained more than 25% missing data. Other missing data were minimal and random – less than the recommended 5% (Tabachnick & Fidell, 2013). Therefore, pairwise deletion was used to maximize the responses of participants. In all, 82 participants provided full data sets for the SRLS, 87 participants provided full information for the personal strivings and GBC, and 85 participants provided full data sets for the LGS. Thus, the number of participants needed to meet appropriate power for multiple regression was met or exceeded.

To address assumptions associated with multiple regression, multicollinearity among IVs was assessed via variance inflation factor (VIF) and tolerance statistics (Hair Jr., Black, Babin, & Anderson, 2014; Pallant, 2016), and normality, linearity, and homoscedasticity were assessed via examination of residuals scatterplots, as recommended by Tabachnick and Fidell (2013). Additionally, participants were only allowed to take the surveys once, ensuring independence of observations.

Data were analyzed first using an independent samples t-test to determine the influence of gender on SRLS scores. There was no significant difference in SRLS scores across gender, $t(80) = -.595$, $p = .553$; thus, gender was not included in the regression model. Data were then analyzed using multiple regression to determine the predictive value of generativity to socially responsible leadership. Effect size was calculated via the squared multiple correlation coefficient, R^2 , which indicated the proportion of variance in socially responsible leadership accounted for by generativity. Both R^2 and the adjusted R^2 values are reported. Additionally, both unstandardized and standardized regression coefficients are reported.

Analysis in the qualitative phase followed recommended guidelines for phenomenology as outlined in Creswell and Poth (2018) and Moustakas (1994), which involved identifying significant statements within the interview data and then grouping similar significant statements into meaning units (themes). Relationships between and among meaning units were drawn to draft a textural statement (what the participants have experienced related to the relationship between generativity and socially responsible leadership) and a structural description (how the participants experienced the relationship between generativity and socially responsible leadership through their mentoring experience). The textural and structural descriptions were then examined together to build a composite description of the phenomenon, called the essence of the experience. Interview themes and essence were then integrated with the quantitative data results to provide a richer explanation of the quantitative results.

Results

Phase 1: Quantitative. A standard multiple regression was performed between socially responsible leadership as the dependent variable and generative concern (via LGS), generative behavior (via GBC), and generative commitment (via Personal Strivings) as independent variables.

No significant univariate outliers, as indicated by z scores ± 3.0 with unusual response patterns, were present in the data. Evaluation of multivariate outliers using Mahalanobis distance calculations revealed two cases with a multivariate distance from the linear combination of means beyond the threshold distance of 10.4 (Tabachnick & Fidell, 2013). Since the power analysis revealed a sample size requirement of 82, and only 82 respondents provided full data sets, the regression analysis was conducted with and without the outliers to determine the influence of outliers on the regression output, as recommended by McCune, Grace, and Urban (2002). The regression analysis yielded similar results with and without the

outliers; thus, the outlying cases were left in the dataset.

Evaluation of assumptions associated with multiple regression indicated that all assumptions were met. VIF statistics were all below the threshold value of 10 and tolerance statistics more than the 0.1 threshold, indicating no detection of multicollinearity (Hair Jr. et al., 2014; Pallant, 2016). Scatterplots between each of the three independent variables and the dependent variable demonstrated normal positive linear relationships. Converted skewness and kurtosis z scores were within +/- 3.29, which is

recommended for a medium size sample (Kim, 2013; $50 < n = 82 < 300$), and residual scatterplots were also evenly distributed symmetrically around the center, which is considered acceptable for normality (Tabachnick & Fidell, 2013). The residual scatterplots also demonstrated similar standard deviations of errors across all predicted values, indicating homoscedasticity (Tabachnick & Fidell, 2013).

Descriptive statistics, zero-order correlations, and Cronbach alphas are shown in Table 1.

Table 1.
Descriptive Statistics and Zero-Order Correlations Among Study Variables.

Variable	1	2	3	4
1. LGS	.69			
2. GBC	.40**	.80		
3. PrsStrv	.06	.34**	--	
4. SRLS	.48**	.38**	.24*	.83
<i>M</i>	66.56	71.57	3.93	289.60
<i>SD</i>	4.65	8.40	1.78	20.13

*Note. Internal consistency estimates (Cronbach's alpha) in boldface along the diagonal

*p < .05, **p < .001

Table 1 shows significant associations between generative concern (LGS), generative behavior (GBC), personal strivings (PrsStrv), and socially responsible leadership (SRLS).

The results from the regression analysis are shown in Table 2, displaying the unstandardized regression coefficients (B), the standardized regression coefficient (β), multiple R, R², and adjusted R². All independent variables were mean centered prior to the regression analysis in order to make the unstandardized regression coefficients (B) more easily interpretable.

Table 2.

Standard Multiple Regression of Generative Concern, Generative Behavior, and Generative Commitment on Socially Responsible Leadership

Variables	Unstandardized Coefficients		Standardized Coefficient
	B	SE (B)	β
LGS	1.77	.46	.41**
GBC	.39	.27	.16
Prs Strv	1.77	1.16	.16
R^2	.29		
Adjusted R^2	.27		
Multiple R	.54**		
Intercept	262.31		

*Note. Note. All variables are mean-centered.

** $p < .001$

Multiple R for regression was significant, $F(3, 76) = 10.55$, $p < .001$ with R^2 at .29 and 95% confidence limits from .14 to .45. The adjusted R^2 value of .27 indicates that 27% of the variability in socially responsible leadership is predicted by generative concern, generative behavior, and generative commitment. Generative concern, however, emerged as the only significant predictor. The size and direction of the relationship suggest that higher socially responsible leadership is associated with higher demonstration of generative concern. For the generative concern regression coefficient, the 95% confidence interval was .86 to 2.68.

Although the bivariate correlation between socially responsible leadership and generative behavior and the bivariate correlation between socially responsible leadership and generative commitment were significant, generative behavior and generative commitment did not contribute significantly to the regression model. The relationship between socially responsible leadership, generative behavior, and generative commitment is perhaps mediated by the relationship between generative concern and socially responsible leadership.

Phase 2: Qualitative. The second phase of the current study focused on the experiences of nine students from the quantitative sample to elucidate the findings from the quantitative phase and to answer the question, What meaning do college students ascribe to their experiences with generativity and socially responsible leadership in the context of mentoring? The nine participants in the qualitative phase were college students from the quantitative phase who represented either high, middle, or low generativity and SRLS scores in order to create a balanced sample. Two participants were sophomores, four were juniors, and three were seniors. Seven participants were female and two were male. The participants varied in age, gender, hometown, college major, and age of mentee (referred to as "junior counselor"). Five junior counselors were in high school, three were in middle school, and one was in first grade. Overarchingly, the participants gave a full-range scope of students within the leadership mentoring program.

Several themes emerged from the data that described the relationship between generativity and socially responsible leadership (SRL) in the context of mentoring. The themes presented in the following

sections will note evidence from the interviews that support the suggested model for the relationship between generativity and SRL in the context of mentoring presented at the conclusion of the Results section (see Figure 2).

Mentoring embodies generativity. When describing their mentoring relationship, seven out of nine respondents articulated an increase in generativity conscientiousness as their mentoring tenure lengthened and an increased desire to act out of this new awareness. Discussing her enhanced generativity conscientiousness, Jane, a junior student in the leadership mentoring organization, noted, "[Mentoring has] given me a push or a motivation to care for the people who are younger than me. I wouldn't say that before I necessarily consciously thought about the fact that, 'I'm really going after these people who are younger than me,' but now it's kind of just an instinct." Similarly, Leni, a senior student in the leadership mentoring program, said the following about the effects of her leadership mentoring experience: "I'm a lot more aware of my desire to help the next generation and to make a positive change. I'm also more willing to put that into action."

The process of mentoring was, in many ways, viewed as the act of equipping a younger generation with leadership qualities for the future. Tom, a sophomore mentoring a seventh-grade junior counselor, succinctly articulated this act: "Working with the younger generation will make them better leaders in the future." A similar link between mentoring and generativity was articulated from Autumn, a senior in the leadership mentoring program, who saw progress in mentoring as synonymous with embodying generative behaviors: "So knowing that the teeny tiny baby steps that I'm taking with my JC will have like a greater effect once they get older." The respondents viewed the act of mentoring as a generative behavior - nearly to the point where mentoring and generativity were synonymous. Mentoring, as articulated by the respondents, was the act of preparing the next generation for future success in leadership, aligning closely with Erikson's

(1950, 1963) definition of generativity. Jenna, a junior in the leadership mentoring organization, specifically, explained mentoring as a generative act of leadership development, saying "[Mentoring] provides such a cool way of developing a relationship with someone younger than you and how to make it focused on watching them grow as a leader"

Natural correlation between generativity and socially responsible leadership (SRL). All nine respondents observed a natural association between generativity and SRL. When asked directly about her views on the relationship between generativity and SRL, Autumn skillfully expressed the relationship: "If you're wanting to make the change, if you want to make the positive change through socially responsible leadership [...] then I feel like [the mindset of generativity] just kind of comes along with it." Paralleling Autumn, Mike, another senior in the leadership mentoring program, commented, "I think that if you are focused in one, you have to be focused in the other. I think the social responsibility aspect infers that...you're trying to help better something. I think where better part to start than the next generation." The common thread across the participants was the notion that generativity and SRL work, as four participants stated explicitly, "hand in hand." Tom and Mike both commented on the critical role their leadership mentoring experience played in connecting generativity and SRL. Tom stated, "I guess it just kinda solidified...I mean I hadn't necessarily learned about any of them before, but it just kind of brought the two together and helped me realize how they were connected." Mike furthered this sentiment when he said, "I never really put the pieces together of like, 'Hey, there's a whole other group of people you can help'...So I would say [leadership mentoring] ...has linked the bridge between socially responsible leadership and generativity."

When asked specifically about the results from the quantitative phase of research revealing generativity as a significant predictor of SRL, all nine participants affirmed this directional relationship. Autumn noted the effect of her leadership mentoring experience as being rooted in the concept of generativity and

seeing “the repercussions of [generativity] and then be in the program as a whole and seeing it happen all over [town] is just a whole different level of understanding it and seeing it actually take place and make a change.” Additionally, six participants expressed a perception that the relationship between SRL and generativity is bidirectional. Jane explained, “I think the more motivation and on fire somebody is for guiding the next generation, the higher the positive social change is going to be. So I think...that can go both ways... You see the positive outcome that you are desiring. Then that’s going to influence your motivation to guide the next generation as well.” Autumn also articulated a cyclical relationship by stating, “If you’re wanting to make a change in something, you’re going to have to raise up people who are also going to want to make changes...they [generativity and SRL] just play off of each other.” Beth, a junior in the leadership mentoring program, explained how the connection between generativity and SRL has manifested itself in her relationship with her mentee. “I’ve had to be a leader that is socially responsible in order to be generative...I need to like know my values, understand my values ... so that I can impact her and those around her and help her to invest in those as well.” In sum, all respondents acknowledged the predictive relationship between generativity and SRL among college student leaders who mentor, while six respondents also articulated a connection from SRL back to generativity.

Context of mentoring influences a ripple effect. In addition to facilitating the connection between generativity and SRL, six out of nine respondents articulated that leadership mentoring created a ripple effect that resulted in positive social change, which is the ultimate purpose of the social change model (SCM; Dugan & Komives, 2010). Hazel, a junior in the leadership mentoring program, made a connection between generativity and greater social change: “The relationship between the two is the ripple effects of generativity will eventually lead into social change.” Four participants specifically expressed that being a leadership mentor has had positive ripples in their life beyond the mentoring

relationship. Mike indicated, “I think once you’ve [mentored] in [the leadership mentoring program], it can never just stop with your [mentee]. You’re always going to want to push other people. Like I do the same things with my little brothers [and] younger friends.” In reflecting upon her future career, Leni reflected on “using my relationship with [my mentee] as a way for me to think about how I will go out and impact students when I’m a teacher.” Emma, a senior in the leadership mentoring program, discussed how seeing the influence she has had on the life of her mentee has increased her commitment to fostering impactful relationships: “I have seen the benefits of [our] relationship in her so now I want to take that to my other circles and hopefully build that with them so that they...want to further the impact.”

In addition to benefits for the mentor, two participants expressed that the leadership mentoring relationship also led to the mentee having an enhanced capacity for positive social change. Jane articulated that she invested in her mentee who then invested into younger students, creating a ripple effect of generativity: “The motivation that I have to guide her has increased the positive outcome that she’s been able to make socially in her life...I’ve affected her life and then... she’s taken that and used that as motivation to then reach out to younger people.” Hazel, in describing her mentoring relationship, noted, “I’m focusing on her, and she, through reinvestment and all that, she causes a ripple effect out.”

In essence, the respondents indicated that serving as a mentor provided the necessary context to be more conscious of generativity. As the mentoring relationship progresses, positive effects of generativity are realized, or even one’s own capability to be generative is revealed. Not to say that generative ability was not present before, but their leadership mentoring experience acted as a workshop or laboratory through which this generativity, along with its positive effects on SRL, was revealed to the mentor. The act of mentoring brought about generative awareness, which then revealed more of the positive effects of SRL, creating a ripple effect in their own lives, as well as the lives of their mentees.

The growing awareness of generativity, which was sparked by participation in the leadership mentoring organization, influences SRL. In turn, SRL can affect one's generativity, creating a cyclical relationship

where generative behaviors create positive social change, which then motivates more generative behavior, ultimately leading to a positive ripple effect. This model is shown in Figure 2.

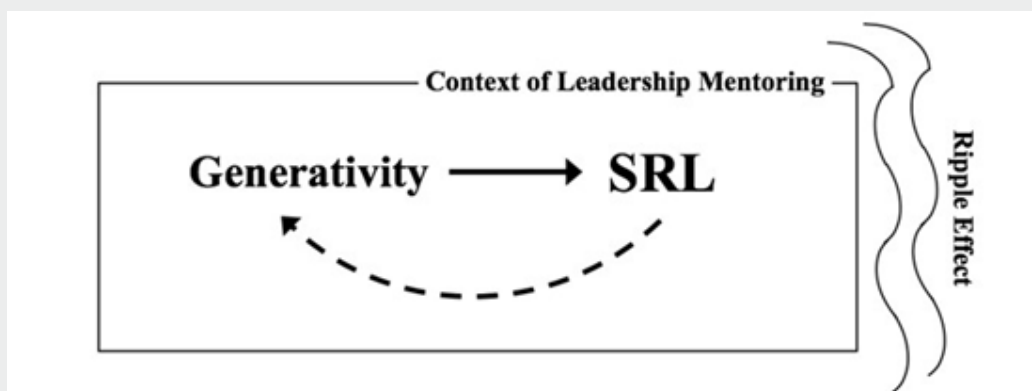


Figure 1. Figure 1. Explanatory sequential mixed methods design (adapted from Creswell & Plano Clark, 2018).

Discussion

Summary of Results. This section integrates findings from both the quantitative and qualitative phases. The qualitative results are presented following the quantitative findings, as they serve to further elucidate the quantitative results.

MANCOVA results revealed generativity as a significant and positive predictor of socially responsible leadership, with 27% of the variability in SRLS scores predicted by generative concern, generative behavior, and generative commitment. Qualitative results affirmed this finding, further explaining that, within the context of mentoring, generativity increases one's ability to create positive social change. Beyond the overall significant relationship between generative concern, generative behavior, and generative commitment and SRLS scores, the quantitative results revealed generative concern as the only significant predictor in the regression model. This implies that the relationship between generative behavior, generative commitment, and SRLS score is mediated by the relationship between generative concern and SRLS, indicating that, perhaps, one's

interest in caring for the next generation (generative concern) aligns most significantly with one's care for building strong families, workplaces, and communities (social responsibility). Respondents in the qualitative phase provided insight on the relationship between generative concern and socially responsible leadership when articulating an enhanced consciousness of generativity throughout their tenure of serving as a leadership mentor, which, as they articulated, ultimately led to an increase in their socially responsible leadership.

With the quantitative findings in mind, as well as aforementioned significant statements and themes from the qualitative results, the model presented in Figure 2 integrates the two research phases by explaining the relationship between generativity and socially responsible leadership in the context of mentoring. Once the participants encountered and immersed themselves in the mentoring experience, they experienced an enhanced generativity consciousness. The subsequent action led to an increase in socially responsible leadership, or "a personal commitment to the well-being of people, our shared world, and the public good" (Komives,

Lucas, & McMahon, 2013, p. 23). The natural association between generativity and socially responsible leadership, as articulated by the qualitative phase participants, operated as a cycle in which a continued desire to invest and enact change in the next generation (generativity) is acted upon because of increased socially responsible leadership. Within the context of leadership mentoring, this relationship ultimately results in a ripple effect of positive social change in the lives of the mentor and the mentee – the purpose of the social change model (Dugan & Komives, 2010).

Theoretical Implications. The first implication of the current study is its analysis and exploration of the formerly unexamined empirical relationship between generativity and socially responsible leadership. Hastings et al. (2015) and Rossi (2001a) suggest a relationship between generativity and socially responsible leadership. Furthermore, Barnes (2014) and Dugan and Komives (2010) documented a positive association between mentoring and socially responsible leadership. By conducting a systematic comparison of one sample of college student mentors' SRLS scores with the same sample's generativity scores, the results of the current study revealed a predictive relationship between generativity and socially responsible leadership. The qualitative evidence further deepened and supported the quantitative results.

Additionally, the current study extends previous findings on the role of mentoring in generativity development. Specifically, the results of Hastings et al. (2015) revealed that college student leaders who mentor demonstrated significantly higher levels of generativity than college student leaders and general college students. This presented an argument for adding "being a mentor" to the list of developmental antecedents for generativity. The qualitative results from the current study further confirm the positive influence of leadership mentoring on generativity, corroborating the unique developmental impact of being a mentor on college students' ability to recognize and then act upon their own generativity.

The final contribution of this research is its use of a mixed methods approach to more fully explore the predictive relationship between generativity and socially responsible leadership. Utilizing both quantitative and qualitative methods enhanced the depth of investigation and exploration. Future studies, particularly those looking at a previously unexamined relationship, may consider implementing this mixed approach.

Implications for Leadership Development Practice. The findings of the current study also have practical relevance. As previously stated, higher education has been called upon to enhance its focus on the development of leadership and social responsibility (Adelman, Ewell, Gaston, & Schneider, 2011; AAC&U & NLC, 2007; CAS, 2015; Dreschsler Sharp, Komives, & Fincher, 2011; NASPA/ACPA, 2004; NACE, 2016). Providing insight on this focus, the current study revealed a predictive relationship between generativity and socially responsible leadership among college student leaders who mentor. Given this connection, institutions of higher education may want to consider intentionally fostering generativity among students. The qualitative results of the current study further revealed that the opportunity to mentor is particularly beneficial for fostering the ability to create positive social change.

Leadership educators and practitioners may also consider replicating the methodological approach used in the current study to evaluate the effects of leadership interventions and experiences. Utilization of a mixed methods approach would deepen evaluation, as well as contribute to the heightened demands for documented outcomes in leadership education (Deming & Figlio, 2016; Reinelt & Russon, 2003; Salmi, 2015).

Limitations and Future Research Directions. Several limitations are salient to the interpretation of these findings. First, the non-experimental design of the current study limits the connection from the data to the population. Specifically, family history and previous experience were potentially confounding variables, as the researchers did not have control

over other factors that may have influenced the generativity and socially responsible leadership of participants (ex. parental levels of generativity and other leadership development experiences; Cook & Campbell, 1979; Shadish, Cook, & Campbell, 2001). To address this limitation, the qualitative phase explored the unique influence of mentoring on the relationship between generativity and socially responsible leadership.

Future researchers may consider extending the results of the current study using a quantitative, longitudinal design and a multiple group analysis with structural equation modeling. Participants' generativity and socially responsible leadership could be assessed before they begin engaging in leadership mentoring and then compared with their scores at the conclusion of their tenure as a leadership mentor. The results from this type of study would provide additional insight relative to mentoring's influence on the predictive relationship between generativity and socially responsible leadership. Other directions for future research might include replicating the current study with people who mentor through various organizations, at the collegiate level and beyond, and conducting a path analysis from antecedents of generativity development (ex. family size, parental affection, and education level; Rossi, 2001b) to generativity and then to socially responsible leadership.

The overall purpose of this study was to examine the predictive relationship between generativity and socially responsible leadership in the context of mentoring to help higher education institutions and leadership educators answer the increasingly common call to develop socially responsible leaders (Dugan & Komives, 2007). Results of the current study provide support to the predictive relationship between generativity and socially responsible leadership, as well as present an argument for the role of leadership mentoring in developing students' capacity for positive social change. Additionally, the mixed-methods design allowed for further and deeper insight on the research questions and provided a more comprehensive understanding

to generativity's influence on socially responsible leadership in the context of mentoring.

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