

FACTORS INFLUENCING SOCIALLY RESPONSIBLE LEADERSHIP
DEVELOPMENT IN COLLEGE STUDENTS

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**FACTORS INFLUENCING SOCIALLY RESPONSIBLE LEADERSHIP
DEVELOPMENT IN COLLEGE STUDENTS**

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A candidate for the degree of doctor of philosophy, and hereby certify that, in their opinion, it is worthy of acceptance.

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I dedicate this work to the loving memory of my mother, Dixie Darlene Kovar. The most brilliant and beautiful soul, my mother was my champion, hero and friend.

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ABSTRACT

The purpose of this study was to examine factors impacting college student leadership development within a College of Agriculture, Food and Natural Resources at the University of Missouri. This study employed descriptive relational survey methods to examine the impact of gender in conjunction with involvement factors (participation in organizations, community service and leadership education) on college student leadership development. The target population was all junior and senior students in the College of Agriculture, Food and Natural Resources at the University of Missouri during the Spring semester of 2014 ($N = 1,124$). One hundred seven participants completed the online instrument (37.3%). Data were collected utilizing an online questionnaire via Qualtrics.

In the examination of the socially responsible leadership outcomes, the highest mean was reported for the outcome of commitment and the lowest mean was reported for the outcome of change. The organization with the highest participation was the Pre-Veterinary Medicine Club. Most students were involved with two to five different organizations during their college career. A majority (92.5%) of the students reported as having engaged in community service during their college career, although 44.9% of respondents did not participate in community service on a regular basis. Students responded as being involved in one to two short term leadership education programs, but

no long-term leadership education programs. The leadership program with the highest reported involvement was the CAFNR Student Organization Leadership Academy.

Eight separate linear regression models were analyzed to determine the impact of organizational involvement, community service participation and leadership education on the development of socially responsible leadership. The variable of gender was considered the confounding variable. Regarding the model for the outcome variable, common purpose (CP), explained 15% of the variance in common purpose and was significant at $p = .003$. In addition the outcome variable, citizenship (CZ), explained 13% of the variance in citizenship and was significant at $p = .007$. Finally, the researcher examined Group Values and found the model explained 9% of the variance in the group values and was significant at $p = .05$.

CHAPTER I

INTRODUCTION

In a modern era of revolutionary leadership theories such as spiritual leadership, transformational leadership, and socially responsible leadership, colleges and universities are maintaining traditional hierarchical approaches to leadership (Komives, Lucas, McMahon, 2007) leaving college graduates unprepared to meet the leadership demands of current employers (Mytelka, 2012). Universities historically exist to develop the next generation of leaders and therefore it follows that graduates in every field of work or study will be expected to demonstrate leadership skills to be successful in their chosen careers (Perkin, 1997). Graduates should be prepared to participate in creating global communities dedicated to the common good of all citizens (Rost & Barker, 2000), which requires collaboration, social responsibility and ethics. Unfortunately, leadership experiences in college tend to focus on organizational structures with hierarchical frameworks (Komives, et al., 2007), focusing on a top-down approach to leadership and negating the idea of leadership for all.

Leadership

Over the past several decades, a revolution has changed the way leadership is conceptualized across a majority of the fields and disciplines (Kezar, Carducci, & Contreras-McGavin, 2006). Moving away from an industrial leadership paradigm dominant in the early and mid-1900s, Rost (1991) described a transformation of leadership, predicting that a postindustrial paradigm would dominate in the twenty-first century. Researchers attribute this change in leadership scholarship to changes in leadership practice. Radical idealists of the 1960s and 1970s challenged authority and

paved the way for modern practices of leadership. This change prompted contemporary scholars to adopt perspectives of leadership including collaboration, service, global and social responsibility, and ethics (Kezar, et al., 2006).

Previous leadership models emphasized authority and power based on one's position, commonly referred to as hierarchical leadership. A modern approach to leadership emphasizes emergent leaders forming a collaborative leadership model of mutual influence and power (Kezar, et al., 2006). Within the industrial paradigm of leadership, researchers assessed the leadership traits, skills, and abilities of various participant groups in the past, supporting a hierarchical leadership model. Currently, researchers have identified socially responsible leadership as a critical approach to the study of leadership, specifically as a core outcome of college (AACU, 2007; Astin & Astin, 2000). In order to examine leadership development in a modern context, one must consider a process-oriented approach to leadership focused on collaboration and social responsibility.

Socially Responsible Leadership

Socially responsible leadership is a concept adopted by the philosophy of leadership presented in the Social Change Model (SCM) of leadership development (HERI, 1996), which serves as the conceptual framework in this study. Emphasizing a non-hierarchical approach to leadership, socially responsible leadership is based on “collective action, shared power, and a commitment to social justice” (HERI, 1996, p. 11). According to Komives, et al. (2007), addressing socially responsible leadership is imperative in the development of today's college students. Socially responsible leadership encourages a leadership for all approach, allowing leadership possibilities for

all students that want to engage in leadership and create change. According to Bischetti (2001), “Encouraging a philosophy [of leadership] that is not top-down, but instead based on a mutual cooperation of support and empowerment unleashes students’ potential for a team-based form of leadership that is non-hierarchical and collaborative” (p. 129).

In addition, empowering others is an important facet of socially responsible leaders. Empowerment is a sharing of authority that removes the stratification separating people within communities and organizations (Hughes, Ginnett, & Curphy, 2006). Students can be empowered through personal relations and individual interactions (Astin & Astin, 2000). Therefore, it is vitally important for socially responsible leaders to focus on personal growth, while cultivating teamwork and advancing community and societal change (Roberts, 2007). Students hoping to engage as a socially responsible leader must be willing and able to confront injustices and challenge inequalities while valuing personal and social relations, acting with character and honesty, and demonstrating authenticity in all dealings (Komives et al., 2009).

Research in socially responsible leadership has been conducted examining factors such as race (Beazley, 2013; Dugan, Komives, & Segar, 2008; Haber, 2006; Kezar & Moriarty, 2000), gender (Dugan, 2006a; Dugan & Komives, 2007; Eagly, Johannesen-Schmidt, & van Engen, 2003), sexual orientation (Dugan, et al.; Dugan & Yurman, 2011), and self-efficacy (Dugan & Komives, 2010). For example, in a study by Beazley (2013) comparing historically Black universities to predominately White universities, findings indicated no differences in leadership capacity based on type of institution. Even though all the studies mentioned examine college students’ capacity for socially

responsible leadership, research collectively examining the various college experiences and the relationship to socially responsible leadership is lacking.

Conceptual Framework

The framework that guided this study was the Social Change Model (SCM) of leadership development. Developed through the combined efforts of the Higher Education Research Institute and the Eisenhower Leadership Development program, a model for undergraduate college student leadership emerged (HERI, 1996). With a concern that college students needed to value collective action and the ability to work with others toward socially responsible goals, leadership educators and scholars conceptualized the SCM of leadership development. These scholars also had a concern for the prevalence of a positional leadership paradigm through traditional hierarchical leadership instruction methods which fueled this need as well.

The SCM encourages highly participatory, non-hierarchical leadership where leadership is a process, not a position, and is accessible to all people. The concept does not refute the idea of positional leadership, but instead focuses on the process the leader goes through and their attitude toward positive social change. The SCM of leadership development has two central goals: to assist students in their leadership self-awareness and leadership competence and to facilitate positive social change (HERI, 1996). The model was specifically designed for students to “increase their self-knowledge, enhance leadership competence, and result in positive social change on campus or in the community beyond” (Roberts, 2007, p. 57).

The model examines leadership development from three different perspectives: Individual Values, Group Values, and Society/Community Values (see Figure 1).

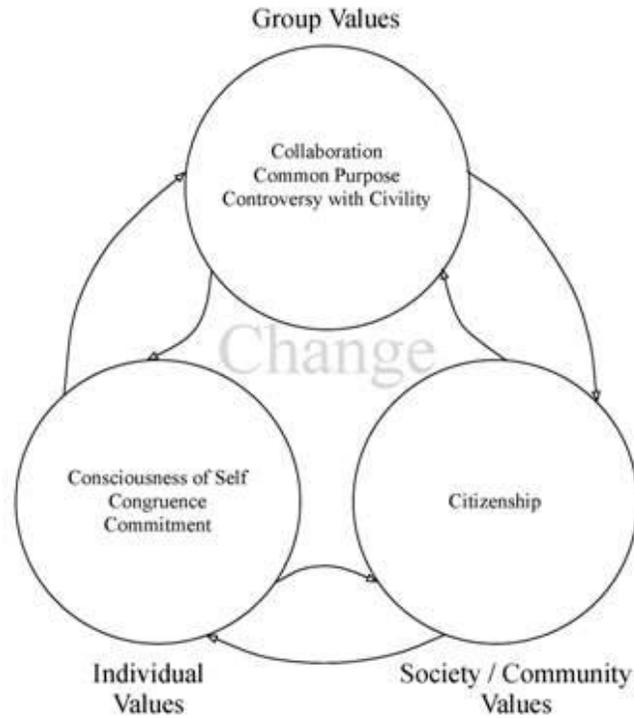


Figure 1. Social Change Model of Leadership Development.

Within the Individual Values perspective, concepts such as development of personal qualities, self-awareness, and personal values are examined. Specific values within the Individual perspective include *Consciousness of Self*, *Congruence*, and *Commitment*. Within the Group Values perspective, collaboration and interaction between the group and individual are examined. The Group perspective encompasses *Collaboration*, *Common Purpose*, and *Controversy with Civility*. Within the Society/Community Values, the focus is placed on bringing about change for the common good. The Community perspective contains *Citizenship*. These seven values collectively contribute to the eighth critical value, *Change*.

As the post-industrial paradigm of leadership suggests that leadership is relational and change-oriented, the social change model of leadership development is concerned

with similar central principles. This framework guided the researcher in the examination of variables impacting the socially responsible leadership outcomes of college students.

The dependent variables in this study are the socially responsible leadership outcomes expressed through the Social Change Model which serves as the frame for this study. Specifically, the variables examined are Consciousness of Self, Congruence, Commitment, Collaboration, Common Purpose, Controversy with Civility, Citizenship and Change. Each value is then associated with one of three levels; Individual, Group, and Society/Community. In turn, each level is inextricably tied to the others. Personal leadership development at the individual level helps facilitate the process at the group level. Similarly, collaborative group experiences enhance a leader's development at the individual level (Wagner, 2006).

The independent variables consistent in the literature as attributing to leadership development among college students include: gender, organizational involvement, community service participation, and leadership education. As a fixed variable, gender is strongly supported in the literature as a variable of interest. Historically, gender has been studied in all paradigms of leadership and should be continued to be examined as those paradigms and approaches change. The remaining variables of interest can all be considered types of involvement.

College Student Leadership Development

As leadership development is an important theme and objective in higher education (Smart, Ethington, Riggs, & Thompson, 2002), some researchers suggest this development of leadership is an important part of shaping the quality of leadership in today's modern society (Astin & Astin, 2000). Dugan and Komives (2010) posit the

college environment offers a multitude of opportunities for higher education to influence students' development of leadership. According to Astin and Astin (2000), the development of effective leaders is imperative to the formation of a thriving civilization, and therefore institutions of higher education should utilize a student's educational experiences toward developing society's future leaders. In addition, college students are higher education's most important stakeholders, and should therefore receive an undergraduate education with leadership education as an established component (Astin & Astin, 2000).

Earlier attempts to evaluate models of college student leadership development focused on the management side of leadership development which was important in the business culture of the time (Bass, 1990). As contemporary institutions increased the utilization of leadership development within their missions and visions, methods of college student leadership development began to change as well. While traditional approaches to college student leadership development within the industrial era emphasized positional, hierarchical, and one-way practices of leadership, modern approaches to leadership are multidirectional, collaborative, networked, and process-oriented (Komives, et al., 2009).

Researchers have examined various factors impacting college student leadership development. In a study by Salisbury, Pascarella, and Padgett (2012), researchers specifically examined the impact of work on college student leadership development. They found that although work had a positive impact on leadership development, off-campus employment hindered the effect of peer interactions and co-curricular involvement on leadership. This implies that the engagement with others in an on-

campus environment fostered the positive impact. In addition, a recent study by Campbell, Smith, Dugan, and Komives (2012) found leadership capacities of college students were influenced by the mentorship process and found that both mentoring for leadership empowerment and mentoring for personal development were positively related to the leadership development of college students, specifically socially responsible leadership. From these findings it can be deduced that empowering and developing leaders on a personal level enhanced socially responsible leadership.

The independent variables consistent in the literature as contributing to leadership development of college students include organizational involvement, community service and leadership education. Although researchers have identified positive relationships between student organizational involvement and leadership development (Dugan, 2006b; Ewing, Bruce, & Ricketts, 2009; Smart, et al., 2002), a significant lack of literature explored the impact of type of organization and level of involvement with the organization. Further, community service is strongly linked with the development of socially responsible leadership in college students (Dugan, 2006b; Dugan & Komives, 2007; Soria, Nobbe, & Fink, 2013), but conclusions from these studies cannot be made regarding specific activities of community service and length of involvement with community service. Finally, research indicates students that participated in formalized leadership programs demonstrated growth in leadership capacities (Cress, et al., 2001; Dugan, 2006b; Kezar & Moriarty, 2000). The focus of these studies sought to examine the impact of a specific leadership training or program. More research is warranted to provide comparisons of participants and non-participants of leadership education.

In addition, gender as a contributing variable in college student leadership development is justified by a lack of consistency in the literature. Some studies found higher leadership abilities among women (Dugan, 2006a; Eagly, Johannesen-Schmidt & van Engen, 2003). Others report higher self-efficacy of leadership abilities among men (Dugan & Komives, 2007; Kezar & Moriarty, 2000). Due to a lack of consistency in gender and leadership research, conclusions cannot be drawn based on present information.

Despite the rich landscape of literature in leadership studies, there is little research on the process of student leadership development utilizing student perspectives in a post-industrial paradigm of leadership (Komives, Longersbeam, Owen, Mainella & Osteen, 2005). One such area lacking sufficient research is the area of Agricultural Leadership. There is a need to examine the process of developing the future leaders of the agricultural industry as the agricultural industry is multifaceted and foundational in our society.

Agricultural Leadership

Programs in agricultural leadership prepare students for careers in agricultural education, extension, management, human resources, governmental relations, strategic planning, organizational training, management consulting, community development, political officials and many other agri-business related fields. Typically, these careers are known for following the industrial paradigm of leadership, but preparing future leaders to enter the agricultural workforce is necessary for the growth and innovation of the agricultural industry (Grant, 2012). The College of Agriculture, Food and Natural Resources at the University of Missouri, which houses the Department of Agricultural Education and Leadership places an emphasis on the development of agricultural leaders

that are capable of providing leadership in their careers and communities. These future leaders need to be fully versed in socially responsible leadership in order to meet the needs of current employers.

There is a need for agricultural leaders with a passion and competence for positive social change (Grant, 2012). For instance, the National Impact Study of Leadership Development in Extension (NISLDE) identified 13 broad leadership competencies necessary for Extension leaders. They were: (1) solving problems, (2) directing projects or activities, (3) forming and working with groups, (4) planning for group action, (5) managing meetings, (6) communicating effectively, (7) developing proficiency in teaching, (8) mobilizing for group action, (9) understanding and developing oneself, (10) understanding financial matters, (11) understanding leadership, (12) understanding society, and (13) understanding social change (Paxson, Howell, Michael, & Wong, 1993). Within these competencies are connections to the values of the Social Change Model (i.e., individual, group, and society). In addition, students interested in non-profit organizations, such as governmental and non-governmental agencies with an agenda for social justice would benefit greatly from socially responsible leadership instruction. Socially responsible leadership is important to the field of agricultural leadership because it offers a foundational approach to leaders in the pursuit of positive social change.

Agricultural leadership research utilizing the Social Change Model is sparse. Recently, Foreman and Retallick examined extracurricular involvement of undergraduate College of Agriculture students in order to determine if the level of involvement impacted the students' socially responsible leadership outcomes (2013). The researchers found a positive correlation between the amount of time spent each week involved in

extracurricular activities and the scores on the socially responsible leadership scale.

From these findings, researchers recommended promoting and encouraging extracurricular activities in agricultural leadership to further develop socially responsible leadership in college students.

Individual, group, and societal values of socially responsible leadership are visible in the foundational practices of agricultural leadership. Even though the values are foundational, the development of agricultural leaders is imperative to the agricultural industry. In light of the polarizing issues facing modern agriculture today, there is a need to reject the industrial paradigms of leadership and embrace the socially responsible paradigm of leadership. As it is unknown whether future agricultural leaders are being developed under a post-industrial paradigm, further examination of socially responsible leadership development is necessary in the field of agricultural leadership.

Leadership experiences in college are imperative to students entering the fields of agriculture, food and natural resources (Crawford, Lang, Fink, Dalton, & Fielitz, 2011). In a recent joint study with the Association of Public and Land-grant Universities (APLU) and the University Industry Consortium, researchers surveyed important soft skills needed to transition from college into the workforce. Findings compare and contrast perceptions, identify misconceptions, and rank priorities for soft skill development among students, faculty, alumni and employers. Specifically, students were more optimistic about their soft skill preparedness than faculty, alumni, and employers. In addition, students, faculty, alumni and employers agree that soft skill experiences in teamwork and leadership are imperative, ranking them second and third in importance respectively (Crawford, et al., 2011). Examining leadership in a College of Agriculture

setting is vital in understanding what experiences best prepare students for competitive employment in the agricultural industry.

Leadership has been associated with agricultural and extension education for decades, but the focus on developing agricultural leaders through collegiate programs is a more recent concept. In a synthesis of the research pertaining to agricultural leadership, Connors and Swan (2006) found only 14 articles focused on collegiate agricultural leadership development between 1988 and 2003. The publications included the *Journal of Agricultural Education* and NAERC proceedings. Specifically examining the *Journal of Agricultural Education*, only seven articles were published pertaining to collegiate agricultural leadership development. The most recent literature pertaining to college student agricultural leadership development is even more scant.

In a study by Rosch and Coers (2013), researchers sought to explore differences in involvement and leadership capacities between students who identified agriculture as their primary major and those students who did not identify agriculture as their primary major. They found a significantly higher involvement with college organizations and leadership positions among agriculture students. There were no significant differences between groups regarding participation in leadership training events. Agricultural students displayed moderately lower levels of leadership capacities. In addition, agriculture students scored moderately lower on a measure of cognitive complexity and engaged less in socio-cultural discussions with peers as compared to the non-agriculture students.

Further research in the area of agricultural leadership is needed to examine leadership capacities of students pursuing careers in agricultural leadership. Preparing

future agricultural leaders for socially responsible leadership is necessary under a modern approach to leadership development.

Need for the Study

A fundamental goal of higher education is the growth and development of college students (Evans, Forney, Guido, Patton, & Renn, 2010). This growth can be characterized not only as the increase of mental capacities, but also the personal and interpersonal growth of students into contributing members of society. Expressed in the form of learning goals, it is important for students to learn the professional skills necessary to be successful society members. Specifically, the development of socially responsible leadership skills offers the benefit of problem solving, communication, collaboration, and citizenship (Mytelka, 2012). More information is needed about the impact of collegiate experiences on college student leadership development.

In addition to the need for socially responsible leadership skills, it is important to acknowledge that colleges and universities operate under a hierarchical leadership paradigm (Komives, et al., 2007). In order to be successful in today's society, college students need a non-hierarchical approach to experiencing leadership (Bischetti, 2001). With a focus on hierarchical experiences, college students are not being educated in all aspects of leadership, specifically modern paradigms such as socially responsible leadership, which is evident from the lack of leadership abilities noted by current employers. An examination of factors that influence college student leadership development is critical for the preparation of socially responsible leaders, particularly in a college of Agriculture, which is career-based, preparing students primarily for a career in the agricultural industry.

Statement of the Problem

Leadership research has supported the need for the development of socially responsible leadership in college students (AACU, 2007; Astin & Astin, 2000; Komives, et al., 2007). However, the impact of a nonhierarchical model in a hierarchical setting remains unknown. If nonhierarchical leadership practices are identified as significant means for socially responsible leadership development, then leadership preparation and professional development can be improved for college students preparing for leadership roles. Improvements in the development of leaders would impact the agricultural industry by enhancing the social responsibility of leaders in the field.

Purpose of the Study

The purpose of this study was to examine factors impacting college student leadership development within a College of Agriculture, Food and Natural Resources at the University of Missouri. The following research objectives were generated to guide the study:

1. Describe college students' development of socially responsible leadership based on the eight outcomes of the Socially Responsible Leadership Scale-R2.
2. Describe college students' level of organizational involvement and participation.
3. Describe college students' involvement in community service.
4. Describe college students' participation in leadership education.
5. Describe the extent to which gender, participation in organizations, community service, and leadership education contribute to college students'

socially responsible leadership outcomes within the College of Agriculture, Food and Natural Resources.

Definitions of Terms

The following definitions were provided for reader clarity.

Leadership – “An influential relationship among leaders and followers who intend real changes that reflect their mutual purposes” (Rost, 1991, p. 102).

Leadership capacity – a skillful involvement in leadership or the maximum leadership potential of a leader (Lambert, 1998).

Organizational involvement – investment of mental and physical energy (Astin, 1993) into a recognized collegiate organization.

Community service – A commitment of time volunteered by individuals or an organization to benefit a community or its institutions.

Leadership education – Formal leadership courses, trainings and programs offering organized educational experiences.

Socially Responsible Leadership Scale (SRLS-R2) – Scale used to measure Social Change Model.

College student leadership development – the process of engagement of leadership capacities through practice and education in the college environment.

Social Change Model – Post-industrial model of leadership development describing leadership as a relational, transformative, process-oriented, learned, and change driven (Dugan & Komives, 2007).

Consciousness of Self – An awareness of one’s current emotional state, behavior, and perceptual lenses.

Congruence – Thinking, feeling, and behaving with consistency, genuineness, authenticity, and honesty towards others based on deeply held beliefs and convictions.

Commitment – A significant investment in an idea or person, both in terms of intensity and duration that motivates the individual and drives the collective effort.

Collaboration – Working with others in a common effort, sharing responsibility, authority, and accountability, with the goal of harnessing the power of diversity to generate creative solutions and actions.

Common purpose – Involving others in building a group’s vision and purpose through shared aims and values.

Controversy with Civility – Recognizes two fundamental realities of any creative group effort: 1) that differences in viewpoint are inevitable, and 2) that such differences must be aired openly, but with civility. A civil person has a respect for others, a willingness to hear varying viewpoints, and exercises a restraint in criticizing the views and actions of others.

Citizenship – The process whereby an individual and the collaborative group become responsibly connected to the community and the society through the leadership activity, fostering interdependence and a responsibility for the welfare of others.

Change – The desire of making a better world and a better society for oneself and others through the collective efforts of individuals, groups, and communities working together to make that change.

Basic Assumptions

The following assumptions guided this study:

1. Respondents completed the instrument accurately and honestly.
2. The responses expressed by participants reflect the authentic perceptions of their leadership experiences.
3. The instrument accurately measured the intended data.

Limitations of the Study

The researcher identified the following limitations:

1. Junior and senior college students were selected as the population because of an increased probability of leadership exposure, but this does not ensure that all participants have unequivocally had leadership experiences during their college career.
2. Student perceptions of leadership capacities were self-reported. Leadership abilities of students were not examined in this study.
3. Data collection was limited to junior and senior students in the College of Agriculture, Food and Natural Resources at the University of Missouri and therefore findings should be generalized only to similar populations.

CHAPTER II

REVIEW OF LITERATURE

Purpose of the Study

The purpose of this study was to examine factors impacting college student leadership development within a College of Agriculture, Food and Natural Resources at the University of Missouri. The following research objectives were generated to guide the study:

1. Describe college students' development of socially responsible leadership based on the eight outcomes of the Socially Responsible Leadership Scale-R2.
2. Describe college students' level of organizational involvement and participation.
3. Describe college students' involvement in community service.
4. Describe college students' participation in leadership education.
5. Describe the extent to which gender, participation in organizations, community service, and leadership education contribute to college students' socially responsible leadership outcomes within the College of Agriculture, Food and Natural Resources.

The review of literature is organized into three separate sections. The first section discusses theories and the evolution of leadership. The next section delves into leadership and personal characteristics such as gender, race and sexual orientation. The final section explores leadership and college experiences such as organizational involvement, study abroad, community service, activism and leadership education.

Leadership Theory and the Evolution of Leadership

Leadership is a complex construct that can be defined and conceptualized in a variety of different ways. The conceptualization of leadership is dictated by the individual or group, time and place. As society has evolved so has the concept of leadership.

Early conceptualizations of leadership include great man, trait, behavioral, and situational approaches to leadership. The mid-nineteenth century introduced the idea that great leaders are born and not made. These “great men” were destined at birth to become leaders, born with natural leadership abilities (Komives, Lucas, & McMahon, 1998). During the early 1900s, trait theories were developed to identify the qualities and characteristics of great leaders (e.g., Thomas Jefferson, Abraham Lincoln, and Mohandas Gandhi). Focused on mental, physical and social characteristics, trait theories sought to gain an understanding of the combination of characteristics common of great leaders (Northouse, 2001). During this time, research concentrated on identifying specific traits that clearly distinguished leaders from followers (Bass, 1990). Spanning the entire twentieth century researchers continued to examine trait leadership (Kirkpatrick & Locke, 1991; Lord, DeVader & Alliger, 1986; Mann, 1959; Stogdill, 1948; 1974). The strongest criticism of trait theory is the identification of differing traits of leaders. Other criticisms include the ambiguous and subjective nature of determining the “most important” leadership traits, the exclusion of the situation, and the failure to examine the relationship with leadership outcomes (Northouse, 2001). Ultimately, trait leadership is not useful in the development and training of leaders due to the unchanging nature of traits.

In response to the criticisms of trait theories of leadership, the mid 1900s saw the introduction of the behavioral approach to leadership. With behavioral leadership, effective leadership is dependent on the actions of the leader. Researchers studying the behavioral approach to leadership essentially identified two types of behaviors: task behaviors and relationship behaviors. Task behaviors facilitate goal and objective accomplishment. Relationship behaviors facilitate people centered, interaction oriented processes with a supportive emphasis on employees (Bass & Stogdill, 1990). Situational leadership exists on the premise that different situations demand different leadership approaches. In addition, the situational leader should change the degree to which they are directive or supportive to meet the changing needs of the followers (Northouse, 2001).

In the 1970s the political sociologist James MacGregor Burns sought to link the roles of leader and follower. Burns distinguished between two types of leadership: transactional and transformational leadership. Transactional leaders exchange tangible rewards for the work and loyalty of followers. Transformational leaders engage with followers, creating “a connection that raises the level of motivation and morality in both the leader and the follower” (Northouse, 2001, p. 132). In 1985, Bass expanded and refined a model of transformational leadership. The transformational leader is concerned with the performance of followers and with developing followers to their fullest potential (Bass & Avolio, 1990). According to Kuhnert (1994), individuals exhibiting transformational leadership typically have a strong set of values and ideals and are effective at motivating followers to support the greater good of the group rather than their own self interests.

The rise of cultural theories of leadership in the 1980s provided the foundation for the use of other paradigms in examining leadership (Kezar, et al., 2006). Rost (1991) predicted a paradigm shift from the traditional views of what he called the industrial paradigm of leadership to a postindustrial paradigm of leadership. The industrial paradigm of leadership is described as having characteristics such as a collective voice, the goal of being number one, and the ultimate one person in charge of the group of followers (Rost, 1991). Citing a crisis, Rost purported that leaders and followers continued to think on the basis of an industrialized paradigm of leadership (1991). Rost then urged the need of leaders capable of thinking in a postindustrial paradigm of leadership that ultimately “guides the choices, behaviors and thoughts of leaders and followers” (1991, p. 101). The postindustrial perspective emphasized a reciprocal relationship between the leader and followers. From this, Rost posed a new definition of leadership as: “an influence relationship among leaders and followers who intend real changes that reflect their mutual purposes” (1991, p. 102). From this definition, Rost identifies four essential elements necessary for leadership to exist: (1) leadership is based on non-coercive and multidirectional influence, (2) both leaders and followers contribute to leadership, (3) the leaders and followers desire real and certain changes, and (4) leaders and followers develop common purposes (Rost, 1991).

Leadership has evolved from an individual characteristic or difference to a dyadic, shared, relational, strategic, global, and a complex social dynamic (Avolio, 2007). The postindustrial paradigm of leadership has led to revolutionary concepts of leadership such as authentic leadership, servant leadership, spiritual leadership, and social change (Kezar, et al., 2006). In order to utilize relevant and current theory in research, this study was

conceptualized within the framework of postindustrial paradigms and revolutionary leadership concepts.

Conceptual Framework

The Social Change Model (SCM) of leadership development has been utilized to frame past investigations of college student leadership development. Employing the use of the Socially Responsible Leadership Scale, researchers were able to explore a variety of factors impacting socially responsible college student leadership development. Factors such as race (Beazley, 2013; Dugan, et al., 2008; Haber, 2006; Kezar & Moriarty, 2000), sexual orientation (Dugan, et al., 2008; Dugan & Yurman, 2011), study abroad (Lee, 2010), and self-efficacy (Dugan & Komives, 2010) indicate the breadth of research across varying topics.

Leadership and Personal Characteristics

The topic of gender in leadership research has been explored in all paradigms of leadership scholarship. From the Great Man theory, through Feminist and Post-Feminist ages, to the current post-industrial era of leadership research, gender remains an area of interest. Early leadership research was conducted in a male-dominant society focused on leadership as a business. Leadership traits were important determinants of leaders. Several of the traits were substantiated through various studies indicating intelligence, masculinity, and dominance were significantly related to peoples' positive perceptions of leaders (Lord, DeVader, & Alliger, 1986; Mann, 1959). This line of research has been criticized, referring to its subjective nature and lack of situational approach. As the views and approach to leadership has changed, so has the scholarship of leadership.

At first, gender was not identified as a predictor of leadership ability. Posner and Brodsky (1994) surveyed fraternity and sorority presidents and executive committee members and found no difference in the practices of effective leaders based on gender. Then, the difference in approach to leadership by gender became more of a focus in the research. Regarding gender role norms in leadership, Schumacher and Swan (1993) found that women agree more strongly with humanistic approaches to leadership while men perceived themselves as dictatorial. In a study by Eagly and Johnson (1990), leadership style was examined and the researchers found that women employed a more democratic leadership style with a strong interpersonal approach, while men relied more on task-related behaviors. Further, according to Fisher, Overland and Adams (2010), men associated themselves with the hierarchical approach to leadership. Women have been found to demonstrate a more transformational approach to leadership than men, as well as higher levels of contingent reward (Eagly, Johannesen-Schmidt, & van Engen (2003). This line of research does not link a certain gender with ability, but appreciates the differences each gender brings to leadership.

Post-industrial studies of gender and leadership development have found higher leadership abilities among women (Dugan, 2006a; Eagly, Johannesen-Schmidt, & van Engen, 2003). According to Eagly and Carli (2003), women possessed skills such as relationship-building, process-orientation, connectedness, and ethics of care and concern providing a leadership advantage to women in a post-industrial paradigm. Interestingly, men reported a higher leadership self-efficacy, or self-confidence, in their leadership abilities, while women displayed higher competence of leadership (Dugan & Komives, 2007). Kezar and Moriarty (2000) examined factors influencing leadership development

among college students at 352 institutions found that leadership development differs based on gender and ethnic identity. Specifically, men reported higher self-efficacy in leadership, as well as higher self-assessed leadership abilities than women, which has been supported in more recent literature (Kezar & Moriarty, 2000). In addition, the researchers reported different strategies were necessary for the development of leadership among a diverse group of students.

Regarding the development of socially responsible leadership in college students, Dugan (2006a) found that both men and women college students relate more to the post-industrial leadership values associated with the Social Change Model than those industrial models focused more on power, hierarchy and management. Specifically, Dugan (2006a) found that women scored higher than men on the Socially Responsible Leadership Scale across all eight of the leadership constructs. Supporting this finding, Dugan and Komives (2007) reported higher scores in women as compared to men in all outcomes except Change. These findings are from the Multi-Institutional Study of Leadership, which examined over 14,000 college students from 52 campuses across the United States.

Examining an additional characteristic, Dugan, et al. (2008) examined race as a predictor of socially responsible leadership and found significant differences with African American/Black students showing higher scores than White students on Consciousness of Self, Controversy with Civility, Citizenship and Change. The authors attribute the lower scores of the White students to individualistic value clashes with a leadership model that reflects a relational instead of autocratic approach to leadership. In addition, when examining socially responsible leadership scores, Haber found that White students were

less involved in community organizations than Asian American students. Regarding the variable of holding a formal leadership role, the Asian American participant scored significantly higher scores than White participants (2006). These findings were not supported by Kezar and Moriarty (2000) which found that White men reported higher scores on leadership ability than African American men, while White women reported higher scores than African American women. A study by Beazley (2013) examined the capacity and predictors of socially responsible leadership among African American/Black students at historically Black universities and predominately White institutions. Comparing the scores of participants between the two types of institutions, the author found no significant differences based on type of institution. Even though race is an important variable in research, the lack of consistency in socially responsible leadership research had led to the exclusion of race as a variable of interest in this study.

Similarly, the variable of sexual orientation is not supported by literature evidence. Dugan and Yurman (2011) examined commonalities and differences among lesbian, gay, and bisexual college students and found no significant differences across the outcomes of leadership efficacy and socially responsible leadership. Supporting this finding, Dugan, et al. reported no significant differences related to the students' sexual orientation (2008).

According to Dugan and Komives (2010), a "theoretical link exists between an individual's self-efficacy for leadership and actual leadership capacity" (p. 528). In a study of college seniors from 50 institutions across 25 states, researchers examined the impact of self-efficacy on socially responsible leadership outcomes and found the students' level of self-efficacy for leadership explained substantive variance in all

outcome measures, contributing between 8 and 12 percent of the total variance. Interestingly, a negative correlation existed between pretest self-efficacy measures and all outcomes measures except consciousness of self and citizenship. The authors offered an interpretation of the results suggesting that too much precollege self-efficacy is harmful to an individual's collegiate leadership capacity (Dugan & Komives, 2010). These findings indicate that high levels of self-efficacy could be expressed as self-importance which aligns with a hierarchical approach to leadership. More research is needed that more appropriately aligns with socially responsible leadership, which has linked as being more suitable for college student leadership development.

A lack of consistency of findings in regards to gender in a post-industrial paradigm of leadership is evident. Researchers disagree, some reporting higher leadership abilities among women, while other report the higher leadership abilities among men. This, in conjunction with the sparse representation of research in gender differences and socially responsible college student leadership development, additional research in this area is necessary. For the purpose of this study, gender is considered a confounding variable because it is not the focus of the study, but is potentially statistically related to the independent variables with possible unintended impacts to the dependent variables. The method utilized to control for the extraneous variable is to build the variable into the research design as an independent variable in the study.

Leadership and College Experiences

Organizational involvement offers a group level of leadership experience to students. According to Astin (1993), organizational involvement is the investment of mental and physical energy into a recognized collegiate organization. The inclusion of

leadership positions within an organization adds an individual level of leadership experience. Community service involvement offers individual, group and societal levels of leadership experience. Community service can be defined as a commitment of time volunteered by individuals or an organization to benefit a community or its institutions. Finally, leadership education includes formal leadership courses, trainings, and programs offering organized educational experiences. Involvement in leadership education varies in the level of leadership experience because of the varying lengths of programs and trainings. Involvement in its entirety is a valued variable of interest because of the vast experiences available to the student. Still to discern are the impacts of these factors on socially responsible leadership development as pertaining to college students. A brief overview of research studies are presented below to address the use of supported variables in regards to leadership development.

Organizational Involvement

A significant body of research present in the area of student leadership development is that of the impact of student organizational involvement. Astin (1993) defines involvement as the investment of mental and physical energy in the collegiate environment. Therefore, organizational involvement is defined as the investment of mental and physical energy into a recognized collegiate organization. Research in the area of organizational involvement and leadership development typically focus on type of involvement and level of involvement. Types of recognized organizations in the collegiate environment include academic, social, athletic, service, fraternity/sorority, ethnic/cultural, professional, and religious.

One measure of the level of involvement is the number of hours a person spends participating in student organizations. Astin (1997) reports a positive association between the number of hours spent participating and students' leadership ability and interpersonal skills. However, when examining the number of organizations a student is involved with, a negative association was reported (Astin, 1997). One factor not examined in this study is the type of organization and the relationship with leadership development, which could offer information pertinent to the relationship between organizational involvement and leadership development. Results could vary depending on the type of organization such as academic, social, athletic or religious. More research is needed based on the type of organization the college student seeks out when wanting to become involved.

Researchers have identified positive relationships between student organizational involvement and leadership development (Dugan, 2006b; Ewing, Bruce, & Ricketts, 2009; Smart, et al., 2002). In a three-year mixed methods study examining organizational involvement and leadership development, Cooper, Healy, and Simpson (1994) found significant differences between students categorized as members as compared to nonmembers. Members showed significantly more growth in leadership outcomes such as developing purpose, lifestyle planning, life management, and cultural participation than nonmembers. Overall, involvement in a student organization was the variable with the most significant change of all variables over the three years of the study.

Regarding the development of socially responsible leaders, Dugan (2006b) revealed through multivariate analysis significant mean differences in leadership development between involved and uninvolved college students. Univariate analysis revealed the type of involvement was significant which supports findings from Kezar and

Moriarty (2000) that the type of involvement affected the type of development. Further, Dugan and Komives (2007) found that the amount of involvement positively related to level of development; although involvement in too many different types of organizations was negatively related to all socially responsible leadership outcomes. Based on the findings from the Multi-Institutional Study of Leadership, it is important to note that 20% of college seniors reported never having participated in any college organization during their college career. In contrast, 40% of college seniors reported heavy involvement in college organizations (Dugan & Komives, 2007).

A recent study by Foreman and Retallick (2012), researchers utilized the Social Change Model of leadership development to examine undergraduate College of Agriculture students' involvement in extracurricular activities and leadership development. The researchers in this study found that the more time spent each week involved in extracurricular activities, the higher the scores on the socially responsible leadership scale utilized in the study. The researchers in this study recommend further research should be conducted to seek a relationship between extracurricular participation and additional unique characteristics of college experiences.

Research indicates a positive relationship between organizational involvement and college student leadership development. Unfortunately, conclusions cannot be drawn to identify if certain organizations are providing more leadership opportunities than others. In addition, it is important to examine the saturation level in which participation in too many organizations becomes detrimental to leadership development. Therefore, a further examination of the impact of organizational involvement on socially responsible leadership development is warranted.

Organizational Leadership Positions

One way to increase involvement in an organization is through participating in a formal leadership role within that organization. Participating in this role provides an opportunity for leadership experience within a group or organization. Examples of formal leadership roles include officer positions (president, vice president, secretary, and treasurer), committee chair or co-chair, and captain or co-captain. The necessary component of a formal leadership role is the implied responsibility held by the positional leader. Leadership roles can be appointed, volunteered for, or elected by vote. Although holding a formal leadership role follows the hierarchical view of leadership, researchers purport it is not the mere act of holding the position, but the ability to make a change within a group or organization (Dugan & Komives, 2007). The leader is not defined by the position, but what they do with it. A study instrumental in the role of separating the idea of formal leadership positions being solely hierarchical in execution is the study by Dugan and Komives (2007). They examined socially responsible leadership outcomes from a sample of over 50,000 students at over 52 different higher education institutions nationwide. They were able to report that 46 % of seniors never had the opportunity to serve in a formal leadership position. In addition, 27 % of seniors served in multiple leadership positions. From this they recommended a broadening of leadership positions in organizations for more students to experience the responsibility of leadership. They purported that being in a leadership position teaches leadership, but because the outcomes are focused on socially responsible leadership, it is not necessarily the position, but the process the leader experiences that develops their leadership capacity.

Formal leadership roles have been successfully linked to leadership development of college students (Dugan, 2006b; Kezar & Moriarty, 2000). Specifically, Kezar and Moriarty (2000) found that involvement in positional leadership roles was the strongest extracurricular predictor of self-reported leadership ability for White men and significant for African American women. Contrary to this finding, non-positional leadership experiences were significant to White women and African American men (2000). There is also research indicating the more time spent in a leadership position, the more likely the student will show gains in civic responsibility, leadership skills, multicultural awareness, understanding of leadership theories, and personal and societal values (Cress, Astin, Zimmerman-Oster, & Burkhardt, 2001). This supports Astin's findings that holding an office, public speaking ability, leadership abilities, and interpersonal skills were all correlated to hours per week spent participating in student clubs and organizations (1993).

In a study of college student involvement and the impact on socially responsible leadership, Dugan (2006b) found that students with experience in formal leadership roles demonstrated significantly higher scores on scales associated with the group and societal levels. Additionally, in the Multi-Institutional Study of Leadership, Dugan and Komives (2007) report a positive influence on all outcomes of the Socially Responsible Leadership Scale for those that have held a formal leadership position, with the strongest effect size for Common Purpose and Citizenship. It is interesting to note that out of more than 14,000 seniors in the study, 46% reported never having the opportunity to serve in a leadership role while in college. On the contrary, 27% of the seniors reported holding many leadership positions over their college career (Dugan & Komives, 2007). The

researchers purport these findings indicate a possible lack of equitable distribution of opportunities among college students.

Even though findings indicate a strong positive impact of positional leadership on socially responsible leadership development, there are gaps in the literature. First, there is a need to examine if certain positional roles offer more leadership development experience, which would be expressed in higher scores in leadership outcomes. Second, it is interesting that students in positional leadership expressed higher scores on group and societal values when positional leadership is considered hierarchical and therefore individual focused. There is a need to further examine this concept. Additional research would be beneficial in attending to these gaps.

Study Abroad and Activism

Very few studies exist examining the impact of study abroad and the development of socially responsible leadership. Lee (2010) found small, but significant differences between college seniors that studied abroad compared to those that did not. Similarly, only one study was found that studied activism in regards to socially responsible leadership development. Activism in this sense was defined by the author as awareness of local, national, and global issues, participating in protests, contacting public officials, signing a petition, and/or buying or not buying products due to personal views (Page, 2010). Findings indicated student activism significantly contributed to the development of socially responsible leadership, specifically the outcomes of citizenship. These findings indicate that students that seek out adventures and unconventional experiences may be more inclined to a post-industrial paradigm that supports socially responsible

leadership. More information is needed to examine if on-campus experiences support this finding.

Community Service

Within the post-industrial paradigm lies the concept of servant leadership. Servant leaders are leaders who put other people's needs, aspirations and interest above their own (Greenleaf, 1977). Although one is not required to participate in philanthropic activities to be considered a servant leader, the drive to help others and give back to the community is applicable to the design of the socially responsible framework explored in this study. For the purpose of this study, community service is defined as a commitment of time volunteered by individuals or an organization to benefit a community or its institutions.

According to the Cooperation for National and Community Service, an average of 26.6% of college students per year engaged in community service between the years of 2009-2011 (CNCS, 2012). Outcomes of community service in college include academic ability, cognitive development, efficacy to affect change, and social responsibility (Eyler & Giles, 1999). Examining the impact of community service participation on undergraduate student development, Astin and Sax (1998) found that "participating in service during the undergraduate years substantially enhances the student's academic development, life skill development, and sense of civic responsibility" (p. 251). In this study, academic outcomes included items such as grade point average, aspirations for continuing education, and amount of contact with faculty. Life skills outcomes included items such as ability to think critically, knowledge of people of different races and cultures, and social self confidence. Civic responsibility outcomes included items such as students' commitment to influence social values, influence the political structure, and

help clean up the environment. The study was based on data collected from 3,450 students from 42 institutions with federally funded community service programs. Examining four types of service: education, human needs, public safety, and environment, the researchers found the beneficial effects occurred across all types of service. The regression model in this study controlled for individual student characteristics at the time of college entrance, including the propensity to engage in service activities. Based on the findings of this study, by encouraging participation in community service during undergraduate education, impacts may be evident on student academic development, life skill development and sense of civic responsibility. Due to the strong connection between community service and socially responsible leadership, the findings also imply possible impacts on the development of socially responsible leaders.

Participation in community service is effective in the development of socially responsible leaders (Dugan, 2006b). In a study of over 14,000 college seniors, community service was the most influential variable impacting the following leadership outcomes: consciousness of self, congruence, commitment, collaboration, common purpose, and citizenship. The researcher found community service to be a significant predictor across a majority of the outcomes of socially responsible leadership (Dugan, 2006b). In addition, Soria, Nobbe, and Fink (2013) assert that “students who participated in community service on their own consistently reported higher socially responsible leadership while students who participated in service both on their own and in a student organization reported higher socially responsible leadership in all areas save for consciousness of self” (p. 117). This supports the previous findings of the Multi-

Institutional Study of Leadership from Dugan and Komives (2007) that revealed through regression the strongest influence of service was seen on Citizenship and Collaboration.

Supported by the literature, community service impacts college student leadership development. Unfortunately, conclusions from these studies cannot be made regarding specific activities of community service and length of involvement with community service. More information is needed to determine if certain aspects of community service are more beneficial to the development of socially responsible leaders than others. It is also unknown whether the frequency of service contributes to leadership development and therefore more information is necessary.

Leadership Education

An additional area of concern regarding college student leadership development is the impact of leadership education. Simply stated, leadership education includes formal leadership courses, trainings and programs offering organized educational experiences. Formal leadership education courses have stated learning objectives, provide lessons specifically designed to develop the leadership capacity of students, and are structurally organized. Examples of leadership education courses would be Personal Leadership Development or Ethics in Leadership. Leadership trainings include activities designed to enhance student leadership skills and improve performance of leadership practices. Examples of leadership training would be an officer training or teaching assistant training. Finally, leadership programs engage students with their surroundings and allow participants to utilize personal experiences and contexts to enhance their development of leadership. Examples of leadership programs include a leadership retreat or conference.

Research indicates participants of formalized leadership education demonstrate growth in leadership capacities (Cress, et al., 2001; Dugan, 2006b; Kezar & Moriarty, 2000). Cress, et al. (2001) evaluated 875 students at 10 different institutions to assess whether participation in leadership education and training programs had an impact on education and personal development. Results indicated that participants showed growth in areas of civic responsibility, leadership skills, multicultural awareness, understanding of leadership theories, and personal and social values that were not seen in students who did not participate in the leadership programs. Endress (2000) noted the completion of a leadership class enhanced students' belief in their abilities to engage in relational leadership behaviors. Specifically, "participants enrolled in the leadership class had significantly higher scores for self-efficacy to Enable, Encourage, Inspire, Model and Influence Others" (p. 187). Controlling for co-curricular involvement, Endress noted higher scores at the completion of a leadership course than in the initial evaluation (2000).

Length of leadership program was also found to be significant. At study by Dugan and Komives (2007) researched the impact of length of leadership program on the development of socially responsible leadership. The Multi-Institutional Study of Leadership included over 50,000 student participants representing 52 campuses from across the United States. This study categorized the length of program into short-term (e.g., one time lecture, workshop), moderate-term (e.g., single course, training series), and long-term (e.g., leadership major or minor, certification program). Dugan and Komives (2007) noted that students who attended even one short-term leadership program reported significantly higher leadership capacity than those who had no training.

Additionally, the researchers found an increase of leadership efficacy in those that participated in all durations of leadership programs. Finally, the researchers identified outcomes associated with the group and societal values of the Social Change Model (i.e., Collaboration, Common Purpose, Controversy with Civility, and Citizenship) demonstrated higher effect sizes for those that participated in any type of formal leadership program. It is important to note that students that participated in long-term experiences (e.g., leadership major or minor, certification program) had significantly enhanced outcomes on the Change value as compared to those that participated in short-term experiences (Dugan & Komives, 2007).

Even though this information is significant, more information is needed regarding areas of study. There is a gap in the literature regarding the development of leadership among different majors within a college, while examining which of those majors provide leadership education and training. Students in certain majors may have more opportunities to participate in leadership education and trainings. Additional research is needed to determine the impact of leadership education among majors.

Summary

Leadership is a complex construct that can be defined and conceptualized in a variety of different ways. There are also a variety of potential impacts regarding socially responsible leadership development. In regards to gender, researchers disagree. Some researchers report higher leadership abilities among women, while others report the higher leadership abilities among men. Concerning organizational involvement, conclusions cannot be drawn to identify if certain organizations are providing more leadership opportunities than others. In addition, it is important to examine the saturation

level in which participation in too many organizations becomes detrimental to leadership development. Furthermore, conclusions from community service studies cannot be made regarding specific activities of community service and length of involvement with community service. More information is needed to determine if certain aspects of community service are more beneficial to the development of socially responsible leaders than others. Lastly, regarding leadership positions, there is a need to examine if certain positional roles offer more leadership development experience, which would be expressed in higher scores in leadership outcomes. It is also interesting that students in positional leadership expressed higher scores on group and societal values when positional leadership is considered hierarchical and therefore individual focused.

CHAPTER III

METHODOLOGY

Purpose of the Study

The purpose of this study was to examine factors impacting college student leadership development within a College of Agriculture, Food and Natural Resources at the University of Missouri. The following research objectives were generated to guide the study:

1. Describe college students' development of socially responsible leadership based on the eight outcomes of the Socially Responsible Leadership Scale-R2.
2. Describe college students' level of organizational involvement and participation.
3. Describe college students' involvement in community service.
4. Describe college students' participation in leadership education.
5. Describe the extent to which gender, participation in organizations, community service, and leadership education contribute to college students' socially responsible leadership outcomes within the College of Agriculture, Food and Natural Resources.

Research Design

This study employed descriptive relational survey methods to examine the impact of gender in conjunction with involvement factors (participation in organizations, community service and leadership education) on college student leadership development. Relational research methods test for statistical associations between variables without

inferring causal relationships (Ary, Jacobs, Razavieh, & Sorensen, 2006). In addition, researchers are able to identify the nature of the relationship between variables such as strength and direction of association utilizing correlational research methods, identifying those variables most highly related to a particular outcome (Ary, et al., 2006).

Variables

The dependent variables in this study were the eight constructs of the Social Change Model; Consciousness of Self, Congruence, Commitment, Collaboration, Common Purpose, Controversy with Civility, Citizenship, and Change. These variables were measured using the SRLS-R2 instrument. The SRLS-R2 is an instrument based on the eight constructs of the Social Change Model of leadership development. Responses for this instrument fall along a Likert continuum ranging from 1 (strongly disagree) to 5 (strongly agree). The independent variables consistent in the literature as variables contributing to the development of leadership capacities include level of organizational involvement, participation in community service activities, and leadership education. For the purpose of this study, gender was considered a confounding variable and controlled for by building it into the design of the study by including this extraneous variable as an additional independent variable. Gender was measured categorically with options of male or female. Students' perceptions of their organizational involvement, community service involvement and leadership education involvement were measured using a Likert scale of 1 (Not Involved) to 4 (Very Involved). See Table 3.1.

Table 3.1
Dependent and Independent Variables Examined

Variable	Measurement	Type
Dependent		
Consciousness of Self	1-5 Likert scale	Interval
Congruence	1-5 Likert scale	Interval
Commitment	1-5 Likert scale	Interval
Collaboration	1-5 Likert scale	Interval
Common Purpose	1-5 Likert scale	Interval
Controversy with Civility	1-5 Likert scale	Interval
Citizenship	1-5 Likert scale	Interval
Change	1-5 Likert scale	Interval
Independent		
Organizational Involvement	1-4 Likert scale	Interval
Community Service	1-4 Likert scale	Interval
Leadership Education	1-4 Likert scale	Interval
Confounding		
Gender	Male, Female	Nominal

Population and Sample

The target population was all junior and senior students in the College of Agriculture, Food and Natural Resources at the University of Missouri during the Spring semester of 2014 ($N = 1,124$). The sample was a simple random sample of the stated population. With randomization, a representative sample from a population provides the ability to generalize to a population (Creswell, 2009). The frame was obtained through the administrative office of the College of Agriculture, Food and Natural Resources. Junior and senior level students were selected because of their increased probability of exposure to leadership due to the amount of time gaining experiences in college.

With a total population of 1,124 (525 juniors and 599 seniors) in the College of Agriculture, Food and Natural Resources, the sample size was calculated to be 287 with a

95% confidence level and a ± 5 confidence interval. One hundred seven participants completed the online instrument (37.3%). An additional 39 participants (13.6%) attempted to complete the instrument, but were removed from the study due to incomplete responses, such as simply replying to only the first two sections of the Socially Responsible Leadership Scale.

There were 43 male (40.2%) and 64 female (59.8%) participants in this study. A total of 50 juniors (46.7%) and 57 seniors (53.3%) completed the online instrument. The majors with the largest numbers of participants were Animal Sciences (20.6%), Parks, Rec, & Tourism (12.1%), and Hospitality Management (10.3%).

Instrumentation

The instrument utilized in this study was an online questionnaire separated into three sections. The first section was comprised of the Socially Responsible Leadership Scale-Revised version two (SRLS-R2) (See Appendix D). The SRLS-R2 was obtained with permission through the National Clearinghouse for Leadership Programs at the University of Maryland. This section was used to measure the dependent variables in the study which were students' values and outcomes of the Social Change Model (SCM). The second and third sections of the instrument were created by the researcher to measure the independent variables in the study, as well as determine the demographics of the population (See Appendix E). The second section of the instrument was used to measure the students' college leadership experiences, including participation organizations, community service activities and leadership education. To examine organizational involvement, the instrument focused on type of organization, leadership positions held, length of involvement, and number of different organizations involvement. Pertaining to

community service activities, the instrument sought to determine the type of service, frequency of service, and percentage of students involved. Regarding leadership education, the instrument examined the length of experience and level of participation. Finally, the third segment of the instrument was utilized to obtain demographic information from the participants, such as gender, class level and college major.

The Original SRLS Instrument

The Socially Responsible Leadership Scale was originally developed as part of a doctoral dissertation by Tyree (1998). The 103-item self-reporting instrument was developed to measure the process of leadership presented by the SCM. The SRLS consisted of eight constructs, with 12-14 questions per construct. The constructs were identified as (1) Consciousness of Self, (2) Congruence, (3) Commitment, (4) Collaboration, (5) Common Purpose, (6) Controversy with Civility, (7) Citizenship, and (8) Change. Primarily designed for use with college students, the instrument can also be used with a variety of groups in different environments (Tyree, 2001). During the initial pilot testing of the SRLS instrument, it was found that the length of the instrument negatively affected the response rate. This version was later revised to decrease the number of items of the instrument.

SRLS-R2 Instrument

The revised version of the SRLS was designed to maintain the reliability of the instrument while decreasing the number of items. The SRLS-R2 is a shorter, 68-item instrument with the same eight constructs with 6-11 questions per construct (Dugan, 2006). Reliability for the constructs of Consciousness of Self, Congruence, Commitment, and Common Purpose have decreased slightly from the original SRLS to

the current SRLS-R2. Reliability for the construct of Citizenship decreased substantially (0.92 to 0.77). Reliability scores increased for the constructs of Collaboration, Controversy with Civility, and Change. Controversy with civility remained the construct with the lowest reliability.

Measurement Error

Validity.

Validity refers to “whether one can draw meaningful and useful inferences from scores on the instrument” (Creswell, 2009, p. 149). Specifically, face validity refers to whether the instrument appears to measure what it claims (Ary, et al., 2006). Content validity assesses the “degree to which a test samples content area which is to be measured” (Ary, Jacobs, & Razavieh, 1972, p. 191). A panel of experts, comprised of an Assistant Professor in Agricultural Education, an Assistant Professor in Educational Leadership and Policy Analysis, along with two doctoral candidates well versed in survey design, examined the questionnaire for face and content validity (See Appendix C). Panel members were asked to examine the face and content validity of the instrument and offer improvement suggestions. Changes recommended by the panel were completed and returned to the members for a final examination.

Reliability.

Reliability is the “degree of consistency that the instrument demonstrates” (Best & Kahn, 2003, p. 277). Along with a factor analysis, the SRLS-R2 was pilot tested and found to be reliable (Dugan, 2006). Table 3.2 displays the Chronbach’s alpha for each construct, comparing the original version to the revised version.

Table 3.2
Reliability Comparisons Between the SRLS and the SRLS-R2

Construct	Tyree	SRLS-R2	Change
Consciousness of Self	0.8167	0.7808	-
Congruence	0.8217	0.7927	-
Commitment	0.8307	0.8314	+
Construct	Tyree	SRLS-R2	Change
Collaboration	0.7691	0.8000	+
Common Purpose	0.8286	0.8134	-
Controversy with Civility	0.6866	0.7197	+
Citizenship	0.9157	0.8945	-
Change	0.7844	0.8157	+

Utilizing test-retest, a pilot test was conducted to estimate the reliability of the second section of the instrument. The pilot group consisted of junior and senior students ($n = 29$) within the College of Education. According to Ary, et al. (1972), calculating the coefficient of correlation (Pearson r) between the scores of the subjects on the two administrations of the instrument, offers an indication of its reliability. The Pearson r ranged from .44 to .94 with a mean of .79 for all 29 participants. Chronbach's alpha ($\alpha=.72$) was determined for the second portion of the instrument, which consisted of 17 items.

Data Collection

Prior to data collection, approval to collect data was requested and received from the Campus Institutional Review Board (IRB) (See Appendix A). Data were collected utilizing an online questionnaire via Qualtrics. Individual participants were invited through email to participate in the study and were provided the link to the survey (See Appendix B). After the initial invitation, non-responders were sent three weekly email reminders to increase participation in the study. Once the participants had completed the survey, they were not sent any further reminders.

Controlling for Errors

Several errors were taken into account during the data collection process.

“Sampling error is the result of measuring a characteristic of some, but not all, of the units or people in the population” (Lindner, Murphy, & Briers, 2001, p. 43). According to Dillman (2000), sampling error always exists at some level when a random sample is drawn, but can be reduced by drawing a large and random sample.

Non-response error occurs when participants fail to provide usable responses (Lindner, Murphy, & Briers, 2001). The researcher in this study was able to reduce non-response error by utilizing multiple contact attempts to encourage response, comparing respondents to non-respondents and the use of incentives (Miller & Smith, 1983). Specifically, follow up emails were sent to non-responders at one week, two weeks, and three weeks after the initial request. Once a participant responded, that individual no longer received requests. According to Miller and Smith (1983), if characteristics of the respondents are typical of the population, this similarity can be reported and the researcher can then generalize from respondents to the sample. Tuckman (1999) recommends sampling 5-10% of non-respondents if fewer than 80% of the sample completed the instrument. The researcher in this study chose to sample 10% of non-respondents ($n = 18$) and compare that group using statistical analysis to determine if a difference existed between these two groups on scaled items of the instrument. For the purpose of comparing two non-equal groups, a Mann-Whitney Test was utilized and indicated no significant differences between respondents and non-respondents (See Table 3.3).

Table 3.3
Mann Whitney Test Comparing Respondents to Non-Respondents

	<i>p</i>
CS	.76
CG	.62
CM	.46
CP	.85
CL	.54
CC	.99
CZ	.97
CH	.77
GRP	.81
IND	.96

Finally, Miller and Smith (1983) recommend the use of incentives as an additional strategy in minimizing non-response error in research. An incentive of a \$50.00 VISA gift card was offered and randomly drawn at the end of the study.

Data Analysis

Data were analyzed through SPSS. The alpha level was established *a priori* at .05. Descriptive statistics describing the sample were reported in addition to means and standard deviations. Objective one was analyzed by describing the mean and standard deviation for each of the eight outcomes on the SRLS-R2. Objective two was analyzed by describing frequency and percentage of participation in specific organizations, the number of organizations students claimed participation, as well as the leadership position held in organizations. The mean and standard deviation of student perception of overall involvement was also reported. Objective three was analyzed by describing percentages and frequencies of student responses regarding participation in community service, including degree of participation, origin and type of service. The mean and standard deviation of student perception of overall involvement was also reported. The fourth

objective was analyzed by describing the frequency and percentage of participation in short, moderate, and long leadership education experiences, as well as participation in specific leadership education programs. The mean and standard deviation of student perception of overall involvement was also reported. Finally, the fifth objective utilized multiple linear regression models to determine the variance in the leadership outcomes due to gender, organizational involvement, community service participation, and the various methods of leadership education. The dependent variables were the eight socially responsible leadership outcomes and the independent variables were organizational involvement, community service participation and leadership education. In this study gender is considered a confounding variable because it is not the focus of the study, but statistically it is related to the independent variables. The method utilized to control for the extraneous variable is to build the variable into the research design as an independent variable in the study. The analysis of more than one predictor in the regression model allows for a greater potential for predictive power as compared to a simple linear regression which only examines one predictor variable.

CHAPTER IV

FINDINGS

Purpose of the Study

The purpose of this study was to examine factors impacting college student leadership development within a College of Agriculture, Food and Natural Resources at the University of Missouri. The following research objectives were generated to guide the study:

1. Describe college students' development of socially responsible leadership based on the eight outcomes of the Socially Responsible Leadership Scale-R2.
2. Describe college students' level of organizational involvement and participation.
3. Describe college students' involvement in community service.
4. Describe college students' participation in leadership education.
5. Describe the extent to which gender, participation in organizations, community service, and leadership education contribute to college students' socially responsible leadership outcomes within the College of Agriculture, Food and Natural Resources.

Population and Sample

The target population was all junior and senior students in the College of Agriculture, Food and Natural Resources at the University of Missouri during the Spring semester of 2014 ($N = 1,124$). The sample was a simple random sample of the stated population. With randomization, a representative sample from a population provides the

ability to generalize to a population (Creswell, 2009). The frame was obtained through the administrative office of the College of Agriculture, Food and Natural Resources. Junior and senior level students were selected because of their increased probability of exposure to leadership due to the amount of time gaining experiences in college.

With a total population of 1,124 (525 juniors and 599 seniors) in the College of Agriculture, Food and Natural Resources, the sample size is calculated to be 287 with a 95% confidence level and a ± 5 confidence interval. One hundred seven participants completed the online instrument (37.3%). An additional 39 participants (13.6%) attempted to complete the instrument, but were removed from the study due to incomplete responses. This study was limited based on the low response rate and can therefore only be generalized to the selected population.

Table 4.1 displays the students' gender, class level and major. There were 43 male (40.2%) and 64 female (59.8%) participants in this study. A total of 50 juniors (46.7%) and 57 seniors (53.3%) completed the online instrument. The majors with the largest numbers of participants were Animal Sciences (20.6%), Parks, Rec, & Tourism (12.1%), and Hospitality Management (10.3%).

Table 4.1
Demographic Characteristic of Participants (n = 107)

	<i>f</i>	%
Gender		
Male	43	40.2
Female	64	59.8
Class Level		
Junior	50	46.7
Senior	57	53.3
Major		
Animal Sciences	22	20.6
Parks, Rec, & Tourism	13	12.1
Hospitality Management	11	10.3
Agribusiness	10	9.3
Biochemistry	10	9.3
Wildlife & Fisheries Sciences	8	7.5
Plant Sciences	7	6.5
Agricultural Education	6	5.6
Atmospheric Sciences	4	3.7
Agricultural Economics	3	2.8
Environmental Sciences	3	2.8
Food Sciences	3	2.8
Science & Agriculture Journalism	3	2.8
Agricultural Sciences	2	1.9
Ag Systems Management	1	.9
Other	1	.9

Objective One

Research objective one sought to describe college students' development of socially responsible leadership based on the eight outcomes of the Socially Responsible Leadership Scale-R2. Table 4.2 displays the mean (*M*) and standard deviation (*SD*) for each of the socially responsible constructs. The outcome of commitment, which reflected the students' perception of an investment in an idea or person, both in terms of intensity and duration that motivates the individual and drives the collective effort, had the highest mean of 4.44 (*SD* = .51). Congruence, which focused on the thinking, feeling, and behaving with consistency, genuineness, authenticity, and honestly towards others based

on deeply held beliefs and convictions, had the second highest mean at 4.18 ($SD = .53$). Common purpose assessed students' perceptions of involving others in building a group's vision and purpose through shared aims and values. This outcome had the third highest mean at 4.10 ($SD = .44$). The outcome collaboration examined students' perceptions of working with others in a common effort, sharing responsibility, authority, and accountability, with the goal of harnessing the power of diversity to generate creative solutions and actions. The mean reported for this outcome was 4.06 ($SD = .45$). The outcome of citizenship, which reflected the students' perceptions of the process whereby an individual and the collaborative group become responsibly connected to the community and the society through the leadership activity, fostering interdependence and a responsibility for the welfare of others, offered a mean of 4.00 ($SD = .55$). The next outcome, consciousness of self, which assessed a student's awareness of their current emotional state, behavior, and perceptual lenses, had a mean of 3.95 ($SD = .50$). The second to last outcome, controversy with civility, recognizes two fundamental realities of any creative group effort: 1) that differences in viewpoint are inevitable, and 2) that such differences must be aired openly, but with civility. A civil person has a respect for others, a willingness to hear varying viewpoints, and exercises a restraint in criticizing the views and actions of others. Student perceptions of this outcome offered a mean of 3.85 ($SD = .40$). Finally, the outcome with the lowest mean was change with 3.76 ($SD = .46$). Change is the desire of making a better world and a better society for oneself and others through the collective efforts of individuals, groups, and communities working together to make that change.

Table 4.2

Mean Outcomes of Socially Responsible Leadership Scale (n = 107)

Socially Responsible Construct	<i>M</i>	<i>SD</i>
Commitment	4.44	.51
Congruence	4.18	.53
Common Purpose	4.10	.44
Collaboration	4.06	.45
Citizenship	4.00	.55
Consciousness of Self	3.95	.50
Controversy with Civility	3.85	.40
Change	3.76	.46

Note: 1 = Strongly Disagree, 2 = Disagree, 3 = Neither Agree nor Disagree, 4 = Agree, 5 = Strongly Agree

For each individual construct, the researcher also examined the mean and standard deviation of each question within the construct. Table 4.3 displays the findings for the first construct, Consciousness of Self (n = 101). There were nine total items in this construct. Two items in this construct were identified as negative response questions. These two items were reverse coded prior to statistical analysis. The item with the highest mean stated, *The things about which I feel passionate have priority in my life*. The item with the lowest mean stated, *Self-reflection is difficult for me*.

Table 4.3

Socially Responsible Leadership Outcome Consciousness of Self (n = 101)

Statement	<i>M</i>	<i>SD</i>
The things about which I feel passionate have priority in my life.	4.36	.73
I am able to articulate my priorities.	4.24	.64
I know myself pretty well.	4.22	.69
I could describe my personality.	4.03	.81
I can describe how I am similar to other people.	3.97	.76
I have low self-esteem.*	3.81	.98
I am usually self-confident.	3.78	.86
I am comfortable expressing myself.	3.71	.94
Self-reflection is difficult for me.*	3.44	1.10

Note: 1 = Strongly Disagree, 2 = Disagree, 3 = Neither Agree nor Disagree, 4 = Agree, 5 = Strongly Agree

* Reverse-coded

Items for the construct, Congruence (n = 105), are detailed in Table 4.4. There were seven total items in this construct. The Congruence construct held no negative response questions. The item with the highest mean stated, *Being seen as a person of integrity is important to me*. The item with the lowest mean stated, *It is important for me to act on my beliefs*.

Table 4.4
Socially Responsible Leadership Outcome Congruence (n = 105)

Statement	<i>M</i>	<i>SD</i>
Being seen as a person of integrity is important to me.	4.45	.66
I am genuine.	4.26	.79
It is easy for me to be truthful.	4.19	.84
My behaviors reflect my beliefs.	4.16	.70
My actions are consistent with my values.	4.13	.69
My behaviors are congruent with my beliefs.	4.09	.65
It is important to me to act on my beliefs.	3.99	.78

Note: 1 = Strongly Disagree, 2 = Disagree, 3 = Neither Agree nor Disagree, 4 = Agree, 5 = Strongly Agree

Table 4.5 displays the findings for the next construct, Commitment (n = 106). There were six total items and no negative response questions in this construct. The item with the highest mean stated, *I am willing to devote time and energy to things that are important to me*. The item with the lowest mean stated, *I am focused on my responsibilities*.

Table 4.5
Socially Responsible Leadership Outcome Commitment (n = 106)

Statement	<i>M</i>	<i>SD</i>
I am willing to devote time and energy to things that are important to me.	4.58	.62
I hold myself accountable for responsibilities I agree to.	4.53	.57
I can be counted on to do my part.	4.42	.74
I stick with others through the difficult times.	4.42	.67
I follow through on my promises.	4.41	.64
I am focused on my responsibilities.	4.27	.68

Note: 1 = Strongly Disagree, 2 = Disagree, 3 = Neither Agree nor Disagree, 4 = Agree, 5 = Strongly Agree

Items for the construct, Common Purpose (n = 103), are detailed in Table 4.6.

There were nine total items in this construct. The Common Purpose construct held no negative response questions. The item with the highest mean stated, *It is important to develop a common direction in a group in order to get anything done.* The item with the lowest mean stated, *I have helped to shape the mission of the group.*

Table 4.6
Socially Responsible Leadership Outcome Common Purpose (n = 103)

Statement	<i>M</i>	<i>SD</i>
It is important to develop a common direction in a group in order to get anything done.	4.39	.63
I contribute to the goals of the group.	4.24	.67
I support what the group is trying to accomplish.	4.13	.67
I work well when I know the collective values of the group.	4.13	.60
I am committed to a collective purpose in those groups to which I belong.	4.11	.71
I think it is important to know other people's priorities.	4.09	.64
I know the purpose of the groups to which I belong.	4.00	.66
Common values drive an organization.	3.90	.71
I have helped to shape the mission of the group.	3.84	.72

Note: 1 = Strongly Disagree, 2 = Disagree, 3 = Neither Agree nor Disagree, 4 = Agree, 5 = Strongly Agree

Table 4.7 displays the findings for the next construct, Collaboration (n = 105).

There were eight total items and no negative response questions in this construct. The item with the highest mean stated, *I actively listen to what others have to say.* The item with the lowest mean stated, *My contributions are recognized by others in the groups I belong to.*

Table 4.7

Socially Responsible Leadership Outcome Collaboration (n = 105)

Statement	<i>M</i>	<i>SD</i>
I actively listen to what others have to say.	4.21	.63
Others would describe me a cooperative group member.	4.20	.68
I am seen as someone that works well with others.	4.18	.76
I enjoy working with others toward common goals.	4.12	.66
I can make a difference when I work with others on a task.	4.12	.63
I am able to trust the people with whom I work.	3.93	.86
Collaboration produces better results.	3.90	.73
My contributions are recognized by others in the groups I belong to.	3.76	.86

Note: 1 = Strongly Disagree, 2 = Disagree, 3 = Neither Agree nor Disagree, 4 = Agree, 5 = Strongly Agree

Items for the construct, Controversy with Civility (n = 104), are detailed in Table 4.8. There were eleven total items in this construct. The Controversy with Civility construct held three negative response questions. These items were reverse coded prior to statistical analysis. The item with the highest mean stated, *I am open to others' ideas*. The item with the lowest mean stated, *I am uncomfortable when someone disagrees with me*.

Table 4.8

Socially Responsible Leadership Outcome Controversy with Civility (n = 104)

Statement	<i>M</i>	<i>SD</i>
I am open to others' ideas.	4.34	.57
Hearing differences in opinions enriches my thinking.	4.27	.78
I respect opinions other than my own.	4.24	.67
I value differences in others.	4.21	.63
I share my ideas with others.	4.13	.63
Creativity can come from conflict.	3.94	.71
I struggle when group members have ideas different than mine.*	3.63	.96
When there is conflict between two people, one will win and the other will lose.*	3.55	.91
Greater harmony can come out of disagreements.	3.48	.83
I am comfortable with conflict.	3.26	1.17
I am uncomfortable when someone disagrees with me.*	3.24	1.04

Note: 1 = Strongly Disagree, 2 = Disagree, 3 = Neither Agree nor Disagree, 4 = Agree, 5 = Strongly Agree

*Reverse-coded

Table 4.9 displays the findings for the next construct, Citizenship (n = 103). There were eight total items and no negative response questions in this construct. The item with the highest mean stated, *I value opportunities that allow me to contribute to my community*. The item with the lowest mean stated, *I believe I have a civic responsibility to the greater public*.

Table 4.9
Socially Responsible Leadership Outcome Citizenship (n = 103)

Statement	<i>M</i>	<i>SD</i>
I value opportunities that allow me to contribute to my community.	4.15	.63
I have the power to make a difference in my community.	4.08	.79
I am willing to act for the rights of others.	4.05	.70
I participate in activities that contribute to the common good.	4.03	.70
I give time to making a difference for someone else.	4.03	.68
I believe I have responsibilities to be community.	3.99	.74
I work with others to make my community a better place.	3.85	.82
I believe I have a civic responsibility to the greater public.	3.79	.86

Note: 1 = Strongly Disagree, 2 = Disagree, 3 = Neither Agree nor Disagree, 4 = Agree, 5 = Strongly Agree

Items for the final construct, Change (n = 102), are detailed in Table 4.10. There were ten total items in this construct. The Change construct held three negative response questions. These items were reverse coded prior to statistical analysis. The item with the highest mean stated, *I am open to new ideas*. The item with the lowest mean stated, *Transition makes me uncomfortable*.

Table 4.10
Socially Responsible Leadership Outcome Change (n = 102)

Statement	<i>M</i>	<i>SD</i>
I am open to new ideas.	4.17	.58
There is energy in doing something a new way.	4.03	.71
Change brings new life to an organization.	3.98	.75
I can identify the differences between positive and negative change.	3.98	.72
I am comfortable initiating new ways of looking at things.	3.94	.74
I look for new ways to do something.	3.85	.83
I work well in changing environments.	3.63	.83
New ways of doing things frustrate me.*	3.44	.91
Change makes me uncomfortable.*	3.38	1.03
Transition makes me uncomfortable.*	3.20	.93

Note: 1 = Strongly Disagree, 2 = Disagree, 3 = Neither Agree nor Disagree, 4 = Agree, 5 = Strongly Agree

*Reverse-coded

Together, Consciousness of Self, Congruence, and Commitment made up the overall Individual construct. Collaboration, Common Purpose, and Controversy with Civility made up the overall Group construct. Citizenship was associated with the Society construct. The construct Change was the overarching construct based on the Social Change Model of Socially Responsible Leadership. Table 4.11 displays the mean and standard deviation for constructs of the Social Change Model.

Table 4.11
Social Change Model constructs (n = 107)

Construct	<i>M</i>	<i>SD</i>
Individual	4.19	.45
Group	4.00	.34
Change	3.98	.72
Society	3.76	.46

Note: 1 = Strongly Disagree, 2 = Disagree, 3 = Neither Agree nor Disagree, 4 = Agree, 5 = Strongly Agree

It is interesting to note that all constructs fall within the real limit of Agree which ranges from 3.5 – 4.5. Therefore, only minor differences are noted between the aforementioned constructs.

Objective Two

Research objective two sought to describe college students’ level of organizational involvement and participation. The researcher first examined the frequencies of organization participation from a list of 47 organizations (Table 4.12). Fifteen respondents identified themselves as participants of the Pre-Veterinary Medicine Club. An additional nine participants identified themselves as participants of the organization, Independent Aggies. Both of the organizations, Sustain Mizzou and the CAFNR Student Council, had eight respondents identifying as participants of these organizations, respectively. Sixteen respondents chose “None of the Above” to the list of organizations in the College of Agriculture, Food and Natural Resources. Finally, 32 respondents chose “Other.”

Table 4.12
Frequency of Student Participation by Organization (n = 107)

Organization	<i>f</i>
Other	32
None of the Above	16
Pre-Veterinary Medicine Club	15
Independent Aggies	9
CAFNR Student Council	8
Sustain Mizzou	8
Ag Ed Society	7
The Agricultural Economics Club	7
Block & Bridle	7
The Mizzou Collegiate Farm Bureau Chapter	7
Mizzou FFA Alumni	6
Student Parks, Rec and Tourism Association	6
Wildlife Society	6
Biochemistry Club	5

Organization	<i>f</i>
Agronomy	4
Collegiate Cattle Woman's Association	4
Horticulture Club	4
Sigma Alpha	4
Agricultural Communicators of Tomorrow	3
Environmental Science Club	3
Mizzou Meeting Planners Association	3
Ag Ed REPS	2
Agricultural Systems Management Club	2
Fisheries and Aquatic Sciences Society	2
Food Science Association	2
CAFNR Ambassadors	2
MU Collegiate Horseman's Association	2
Forestry Club	2
Meteorology Club	2
Society of American Foresters	2
MANNRS	0
Alpha Gamma Rho	1
Alpha Gamma Sigma	1
Alpha Zeta	1
BBQ Team	1
Club Managers Association of America	1
Mizzou 4-H	1
Mizzou Storm Chase Team	1
Shooting Club	1
Soil and Water Conservation Society	1
Torque-N-Tigers	1
Alpha MU	0
Biological Engineers Club	0
Eta Sigma Delta	0
Farm House Fraternity	0
Golf Course Superintendents of America	0
Hospitality Managers Association	0
Phi Tau Sigma	0
Rodeo Club	0

To further describe students' level of organizational involvement, the researcher determined the number of different organizations a student participated in during their college career (Table 4.13). A majority (74.7%) of the participants in this study were involved with two to five different organizations during their college career. Eight

respondents (7.5%) indicated having no organizational involvement and two respondents (1.8%) indicated participating in more than five organizations during their college career.

Table 4.13
Frequency of Number of Organizations (n = 107)

Organizational Involvement	<i>f</i>	%
None	8	7.5
1	9	8.4
2	30	28.0
3-5	50	46.7
5+	8	7.5

A further description of students' level of organizational involvement is the examination of student participation in leadership roles (Table 4.14). The researcher determined the frequency of student participation in leadership roles and found 28 students identified as serving as a committee chair in an organization. Fifteen students identified as serving as secretary of an organization during their college career. In addition, 14 students identified as serving as president during their college career. Finally, 14 students identified as serving as vice president of an organization during their college career.

Table 4.14
Frequency of Leadership Position (n = 107)

Position	<i>f</i>
Committee Chair	28
Secretary	15
Other	15
President	14
Vice President	14
Treasurer	8
Captain	5
Co-Capitan	4

When asked to describe their level of involvement in organizations during their college career (1 = Not involved, 2 = Rarely Involved, 3 = Moderately Involved, 4 = Very involved), the calculated mean was 3.01 ($SD = .85$).

Objective Three

Research objective three sought to describe college students' involvement in community service. A majority (92.5%) of the students reported as having engaged in community service during their college career. Further, a majority (67.3%) of students reported not ever taking a course that required a service learning component during their college career.

Next, the researcher examined the students' frequency of community service participation (Table 4.15). Regarding one-time community service events, 57% of respondents participated in one to three one-time events, 15% participated in 4-6 one-time events and 2.8% participated in more than seven one-time service events. In addition, 25.2% of respondents indicated they had not participated in any one-time community service events. Examples of one-time community service events included events such as Relay for Life, Hike for Hunger, or Global Day of Service. Regarding participation of students in community service on a regular basis, 44.9% of respondents did not participate in community service on a regular basis, 24.3% of respondents participated in community service once a month, 22.4% of respondents participated in community service once a week and 8.4% of respondents participated in community service several times a week. Examples of types of community service participated on a regular basis included services such as volunteering at an animal shelter, senior center, or after school program.

Table 4.15
Frequency of Community Service Participation (n = 107)

Level of Participation	<i>f</i>	%
One-Time Events		
None	27	25.2
1-3	61	57.0
4-6	16	15.0
7+	3	2.8
Regular Basis		
No	48	44.9
Once monthly	26	24.3
Once a week	24	22.4
Several times a week	9	8.4

In addition, the researcher examined the origin of community service experience (Table 4.16). Seventy two respondents completed community service with a student organization, 49 completed community service on their own, 43 completed community service as part of class, 33 completed community service in conjunction with a church. One respondent chose other as the type of community service completed.

Table 4.16
Frequency of Origin of Community Service Experience (n = 107)

Scenario	<i>f</i>
With a student organization	72
On your own	49
As part of a class	43
In conjunction with a religious organization	33
Other	1

Next, the researcher examined the type of community service completed by the participants (Table 4.17). The three most frequent types of service included fundraising, environmental clean-up, and collecting food or supplies. The three least frequent types of service were other, health care, and tutoring.

Table 4.17
Frequency of Type of Community Service Participation (n = 107)

Type of Service	<i>f</i>
Fundraising	52
Environmental clean-up	45
Collecting food or supplies	40
Preparing or serving food	35
Teaching	27
Building or landscaping	24
Mentoring	24
Other	16
Health care	15
Tutoring	14

When asked to describe their level of involvement in community service during their college career (1 = Not involved, 2 = Rarely Involved, 3 = Moderately Involved, 4 = Very involved), the calculated mean was 2.65 ($SD = .70$).

Objective Four

Research objective four sought to describe college students' participation in leadership education (Table 4.18). The types of leadership education were broken into short-term experience, moderate-term experiences, and long-term experiences. Examples of short-term experiences included an individual or one-time workshop, retreat, conference, lecture or training. Moderate-term experiences included a single leadership course, multiple or on-going retreats, conferences, institutes, workshops, and/or trainings. Long-term experiences included a multi-semester leadership program, leadership certificate program, leadership major or minor. Regarding short-term experiences, 49.5% of respondents reported having participated in one to two short-term experiences. An additional 22.4% participated in three to four short-term experiences, 13.1% participated in more than five short-term experiences and 15% reported no experience with short-term leadership experiences. In reference to moderate-term leadership experiences, 39.3% of

respondents reported having participated in one to two experiences, 12.1% of respondents participated in three to four experiences, 6.5% participated in more than five experiences, and 42.1% of respondents reported no experience with moderate-term leadership experiences. Finally, regarding long-term leadership experiences, 25.2% of respondents reported participating in one to two experiences, 3.7% of respondents participated in three to four experiences, 1.9% of respondents participated in more than five experiences, and 69.2% of respondents reported no experience with long-term leadership experiences.

Table 4.18
Frequency of Participation in Leadership Experiences (n = 107)

	<i>f</i>	%
Short-Term Experiences		
0	16	15.0
1-2	53	49.5
3-4	24	22.4
5+	14	13.1
Moderate-Term Experiences		
0	45	42.1
1-2	42	39.3
3-4	13	12.1
5+	7	6.5
Long-Term Experiences		
0	74	69.2
1-2	27	25.2
3-4	4	3.7
5+	2	1.9

Next, the researcher examined the frequency of participation in specific leadership programs (Table 4.19). The leadership program with the highest frequency of participants was the CAFNR Student Organization Leadership Academy (SOLA) with 12 respondents having participated in the program. An additional 4 respondents indicated participation in the Agricultural Leadership minor and 2 respondents indicated pursuing an Agricultural Education major with an emphasis in leadership.

Table 4.19

Frequency of Participation in Leadership Programs (n = 107)

Leadership Program	<i>f</i>
CAFNR Student Organization Leadership Academy (SOLA)	12
Agricultural Leadership Minor	4
Leadership Certificate Program	3
Other	3
Agricultural Education Major with Leadership Emphasis	2
Senior Leadership Capstone Experience	2
Multi-Semester Leadership Program	1

When asked to describe their level of involvement in leadership education during their college career (1 = Not involved, 2 = Rarely Involved, 3 = Moderately Involved, 4 = Very involved), the calculated mean was 2.23 ($SD = .94$).

Objective Five

Research objective five sought to examine the extent to which gender, participation in organizations, community service, and leadership education contribute to college students' socially responsible leadership outcomes within the College of Agriculture, Food and Natural Resources.

Assumptions

To draw conclusions about a population, the researcher verified the underlying assumptions for multiple linear regression were met. Field (2009) discusses nine specific assumptions which are: variable types, non-zero variance, no perfect multicollinearity, predictors are uncorrelated with 'external variables', homoscedasticity, independent errors, normally distributed errors, independence and linearity. See Appendix F for all assumption testing statistical output.

The first assumption, variable type, requires that all variables are quantitative or categorical, and the outcome variable must be continuous and unbounded (Field, 2009).

The researcher determined all predictor variables, Organizational Involvement (ORG), Community Service (COMM) and Leadership Education (LEAD), were interval and were not constrained. The outcomes variables, which were the Socially Responsible Leadership outcomes, were also interval and not constrained. Therefore, the researcher concluded assumption one was met.

The second assumption was for non-zero variance. This assumption serves to make sure all the predictors have some variation in value (Field, 2009). The researcher verified the variables ORG, COMM, and LEAD all exhibited some variation in value; therefore, assumption two was considered met.

The third assumption, no perfect multicollinearity, dictates there should not be a perfect linear relationship between two or more of the predictors. The researcher ran correlations on the variables for ORG, COMM and LEAD to determine if multicollinearity was an issue. The tolerance and variance inflation factor (VIF) collinearity statistics were viewed and confirmed for VIF values less than 10 and tolerance statistics above 0.20 (Field, 2009). No substantial correlations ($r > 0.9$) were found; therefore the assumption for no perfect multicollinearity was met (Field, 2009). See Table 4.20.

Table 4.20
Correlation coefficients for student perceptions of Organizational Participation, Community Service Participation and Leadership Education Participation

	ORG	COMM	LEAD	Gender
Organizational Participation (ORG)	1.0	.48	.42	-.10
Community Service Participation (COMM)		1.0	.37	-.01
Leadership Education Participation (LEAD)			1.0	.04
Gender				1.0

The fourth assumption of multiple linear regression requires verification of predictors being uncorrelated with ‘external variables’ (Field, 2009). The researcher referenced the literature and concluded there are no external variables that correlate with any of the variables included in the regression model. Assumption four was met.

The fifth assumption, homoscedasticity, assumes the variance of the residual terms is constant. Field (2009) suggests a visual assessment of the residuals when the independent variables are identified as continuous in nature. This is used in place of Levene’s test, as this assessment is used to determine homoscedasticity with categorical data. Scatterplots for organizational involvement, community service participation and leadership education participation provided a visual confirmation of homoscedasticity. Therefore, the fifth assumption was tenable.

The sixth assumption for regression was independent errors. This assumption verifies the residual terms should be independent (uncorrelated) of each other (Field,

2009). The researcher conducted a Durbin-Watson test to determine serial correlations between errors. The test statistic can vary between zero and four, with results of a two indicate the residuals are independent. Values below two indicate a positive correlation, whereas a value above two indicates a negative correlation. The Durbin-Watson statistic (Table 4.21) ranged from 1.69 to 2.11 for all eight outcome variables. All values indicate a positive value, except for one, Commitment (2.11). The researcher considered assumption six tenable.

Table 4.21
Durbin-Watson statistic for independence of observation for dependent variables (n = 107)

	<i>Durbin-Watson Statistic</i>
Consciousness of Self	1.72
Congruence	1.80
Commitment	2.11
Common Purpose	1.95
Collaboration	1.69
Controversy with Civility	1.73
Citizenship	1.82
Change	1.87

The seventh assumption for regression is the presence of normally distributed errors. This assumption assumes the residuals in the model are random, normally distributed variables with a mean of zero (Field, 2009). The researcher tested for normal distributions by visual assessment of histograms and P-P plots. Upon visual assessment, the researcher concluded the residuals in the model were random and normally distributed; therefore, assumption seven was met.

The eighth assumption assumes all of the outcome variable values are

independent (Field, 2009). All eight outcome variables are considered unique constructs; therefore, assumption eight was met.

The ninth assumption, linearity, assumes the relationship being modeled is a linear one (Field, 2009). The researcher plotted the standardized residuals against the standardized predicted values. The visual assessment of the plots indicated no random data points and no specific shape. The researcher concluded the assumption for linearity was met.

Data Analysis

The researcher analyzed eight separate multiple linear regression models to assess any significant relationship between the outcome variable and the predictor variables. For each of the models, the researcher controlled for gender by entering it into its own block of the regression model as it was considered an intervening variable. The other block consisted of the three additional predictor variables, organizational involvement, community service participation and leadership education participation. The output showed the results of all independent variables without gender and all independent variables including gender for comparison purposes. From each of the models the researcher was able to determine the correlation coefficient (R), the coefficient of determination (R^2), the unstandardized coefficient (b), the standardized beta coefficient (β), t -value, and significance (p). In addition, the adjusted R^2 and the F statistic were determined and included as a note in each of the tables.

The first outcome variable assessed was consciousness of self (CS). The model explained 5% of the variance in consciousness of self, but was not significant at $p = .29$ (Table 4.22).

Table 4.22

Regression to Explain Variance in Consciousness of Self (n = 107)

	<i>R</i>	<i>R</i> ²	<i>b</i>	β	<i>t-value</i>	<i>p</i>
Model 1	.06	.01				.57
Model 2	.22	.05				.29
Organizational Involvement			.13	.22	1.88	.06
Community Service			-.00	-.00	-.01	.99
Leadership Education			-.01	-.02	-.18	.86
Gender			.08	.08	.79	.43

Note: Adjusted $R^2 = .01$; $F_{4, 100} = 1.243$; $p \leq .05$.

The second outcome variable assessed was congruence (CG). The model explained 8% of the variance in congruence, but was not significant at $p = .07$ (Table 4.23).

Table 4.23

Regression to Explain Variance in Congruence (n = 107)

	<i>R</i>	<i>R</i> ²	<i>b</i>	β	<i>t-value</i>	<i>p</i>
Model 1	.14	.02				.14
Model 2	.28	.08				.07
Organizational Involvement			.08	.12	1.05	.30
Community Service			-.01	-.01	-.07	.94
Leadership Education			.10	.17	1.56	.12
Gender			-.15	-.14	-1.43	.16

Note: Adjusted $R^2 = .04$; $F_{4, 100} = 2.179$; $p \leq .05$.

The third outcome variable assessed was commitment (CM). The model explained 6% of the variance in commitment, but was not significant at $p = .16$ (Table 4.24).

Table 4.24

Regression to Explain Variance in Commitment (n = 107)

	<i>R</i>	<i>R</i> ²	<i>b</i>	β	<i>t-value</i>	<i>p</i>
Model 1	.15	.02				.11
Model 2	.25	.06				.16
Organizational Involvement			.10	.16	1.40	.16
Community Service			-.05	-.07	-.57	.57
Leadership Education			.05	.01	.89	.38
Gender			-.15	-.15	-1.48	.14

Note: Adjusted $R^2 = .03$; $F_{4, 100} = 1.675$; $p \leq .05$.

The fourth outcome variable assessed was common purpose (CP). The first model, which included gender only, explained 7% of the variance and was significant at $p = .006$. The second model, which included the remainder of the independent variables, explained 15% of the variance in common purpose and was significant at $p = .003$ (Table 4.25). The only significant variable in the model was gender ($p = .009$).

Table 4.25
Regression to Explain Variance in Common Purpose (n = 107)

	<i>R</i>	<i>R</i> ²	<i>b</i>	β	<i>t-value</i>	<i>p</i>
Model 1	.26	.07				.006*
Model 2	.39	.15				.003*
Organizational Involvement			.09	.17	1.51	.14
Community Service			.08	.13	1.17	.25
Leadership Education			.02	.05	.49	.63
Gender			-.22	-.25	-2.65	.009*

Note: Adjusted R² = .16; F_{4, 100} = 4.382; p ≤ 05.

The fifth outcome variable assessed was collaboration (CL). The model explained 6% of the variance in collaboration, but was not significant at $p = .17$ (Table 4.26).

Table 4.26
Regression to Explain Variance in Collaboration (n = 107)

	<i>R</i>	<i>R</i> ²	<i>b</i>	β	<i>t-value</i>	<i>p</i>
Model 1	.08	.01				.41
Model 2	.25	.06				.17
Organizational Involvement			.05	.09	.79	.43
Community Service			.01	.02	.15	.88
Leadership Education			.08	.17	1.56	.12
Gender			-.07	-.08	-.79	.43

Note: Adjusted R² = .02; F_{4, 100} = 1.649; p ≤ 05.

The sixth outcome variable assessed was controversy with civility (CC). The model explained 3% of the variance in controversy with civility, but was not significant at $p = .17$ (Table 4.27).

Table 4.27

Regression to Explain Variance in Controversy with Civility (n = 107)

	<i>R</i>	<i>R</i> ²	<i>b</i>	β	<i>t-value</i>	<i>p</i>
Model 1	.01	.00				.92
Model 2	.16	.03				.17
Organizational Involvement			.09	.19	1.59	.12
Community Service			-.06	-.11	-.91	.37
Leadership Education			-.00	-.00	-.04	.97
Gender			.00	.01	.08	.94

Note: Adjusted $R^2 = -.01$; $F_{4, 100} = .690$; $p \leq .05$.

The seventh outcome variable assessed was citizenship (CZ). The model explained 13% of the variance in citizenship and was significant at $p = .007$ (Table 4.28). None of the variables were significant in the model, which simply means the researcher could not reject the null hypothesis that the variable was not equal to zero. The combination of the variables led to the model being significant.

Table 4.28

Regression to Explain Variance in Citizenship (n = 107)

	<i>R</i>	<i>R</i> ²	<i>b</i>	β	<i>t-value</i>	<i>p</i>
Model 1	.17	.03				.08
Model 2	.36	.13				.007*
Organizational Involvement			.08	.13	1.15	.25
Community Service			.12	.15	1.34	.18
Leadership Education			.07	.13	1.18	.24
Gender			-.18	-.16	-1.69	.09

Note: Adjusted $R^2 = .10$; $F_{4, 100} = 3.729$; $p \leq .05$.

The eighth outcome variable assessed was change (CH). The model explained 2% of the variance in change, but was not significant at $p = .76$ (Table 4.29).

Table 4.29
Regression to Explain Variance in Change (n = 107)

	<i>R</i>	<i>R</i> ²	<i>b</i>	β	<i>t-value</i>	<i>p</i>
Model 1	.07	.01				.46
Model 2	.14	.02				.76
Organizational Involvement			.02	.03	.26	.80
Community Service			.04	.06	.50	.62
Leadership Education			.03	.05	.47	.64
Gender			-.07	-.07	-.71	.48

Note: Adjusted R² = -.02; F_{4, 100} = .463; p ≤ 05.

Based on the conceptual framework, the Social Change Model, the outcome variables Consciousness of Self, Congruence, and Commitment together form the construct Individual Values. In addition, the outcome variables Collaboration, Common Purpose, and Controversy with Civility together form the construct Group Values. Citizenship is in itself the Society/Community Values construct and Change is the overarching construct. The researcher examined the relationship between the predictor variables and two new constructs (Individual and Group Values) through two additional regression models.

The researcher first examined Individual Values (IND). The model explained 6% of the variance in individual values, but was not significant at $p = .16$ (Table 4.30).

Table 4.30
Regression to Explain Variance in Individual Values (n = 107)

	<i>R</i>	<i>R</i> ²	<i>b</i>	β	<i>t-value</i>	<i>p</i>
Model 1	.09	.01				.33
Model 2	.25	.06				.16
Organizational Involvement			.10	.19	1.64	.10
Community Service			-.02	-.03	-.25	.81
Leadership Education			.05	.10	.87	.36
Gender			-.07	-.08	-.82	.42

Note: Adjusted R² = .03; F_{4, 100} = 1.689; p ≤ 05.

Then, the researcher examined Group Values (GRP). The model explained 9% of the variance in group values and was significant at $p = .05$ (Table 4.31). None of the variables were significant in the model, which simply means the researcher could not reject the null hypothesis that the variable was not equal to zero. The combination of the variables led to the model being significant.

Table 4.31
Regression to Explain Variance in Group Values (n = 107)

	<i>R</i>	<i>R</i> ²	<i>b</i>	β	<i>t-value</i>	<i>p</i>
Model 1	.15	.02				.12
Model 2	.29	.09				.05*
Organizational Involvement			.07	.18	1.60	.11
Community Service			.01	.02	.19	.85
Leadership Education			.04	.10	.88	.38
Gender			-.10	-.14	-1.42	.16

Note: Adjusted R² = .05; F_{4, 100} = 2.369; p ≤ 05.

Summary

The findings represented in this chapter include a description of the college students' development of socially responsible leadership, their organizational involvement, their community service involvement, and their experience in leadership education. Finally, a description of the impact of gender, participation in organizations, community service, and leadership education on college students' socially responsible leadership outcomes was discussed.

CHAPTER V

CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS

Purpose of the Study

The purpose of this study was to examine factors impacting college student leadership development within a College of Agriculture, Food and Natural Resources at the University of Missouri. The following research objectives were generated to guide the study:

1. Describe college students' development of socially responsible leadership based on the eight outcomes of the Socially Responsible Leadership Scale-R2.
2. Describe college students' level of organizational involvement and participation.
3. Describe college students' involvement in community service.
4. Describe college students' participation in leadership education.
5. Describe the extent to which gender, participation in organizations, community service, and leadership education contribute to college students' socially responsible leadership outcomes within the College of Agriculture, Food and Natural Resources?

Limitations of the Study

The researcher identified the following limitations:

1. Junior and senior college students were selected as the population because of an increased probability of leadership exposure, but this does not ensure that all participants have unequivocally had leadership experiences during their college career.

2. Student perceptions of leadership capacities were self-reported. Leadership abilities of students were not examined in this study.
3. Data collection was limited to junior and senior students in the College of Agriculture, Food and Natural Resources at the University of Missouri and therefore findings should be generalized only to similar populations.

Research Design

This study employed descriptive relational survey methods to examine the impact of gender in conjunction with involvement factors (participation in organizations, community service and leadership education) on college student leadership development. Relational research methods test for statistical associations between variables without inferring causal relationships (Ary, et al., 2006). In addition, researchers are able to identify the nature of the relationship between variables such as strength and direction of association utilizing correlational research methods, identifying those variables most highly related to a particular outcome (Ary, et al., 2006).

Population and Sample

The target population was all junior and senior students in the College of Agriculture, Food and Natural Resources at the University of Missouri during the Spring semester of 2014 ($N = 1,124$). The sample was a simple random sample of the stated population. With randomization, a representative sample from a population provides the ability to generalize to a population (Creswell, 2009). The frame was obtained through the administrative office of the College of Agriculture, Food and Natural Resources.

Junior and senior level students were selected because of their increased probability of exposure to leadership due to the amount of time gaining experiences in college.

With a total population of 1,124 (525 juniors and 599 seniors) in the College of Agriculture, Food and Natural Resources, the sample size is calculated to be 287 with a 95% confidence level and a ± 5 confidence interval. One hundred seven participants completed the online instrument (37.3%). An additional 39 participants (13.6%) attempted to complete the instrument, but were removed from the study due to incomplete responses.

There were 43 males (40.2%) and 64 females (59.8%) participants in this study. A total of 50 juniors (46.7%) and 57 seniors (53.3%) completed the online instrument. The majors with the largest numbers of participants were Animal Sciences (20.6%), Parks, Rec, & Tourism (12.1%), and Hospitality Management (10.3%).

Instrumentation

The instrument utilized in this study was an online questionnaire separated into three sections. The first section was comprised of the Socially Responsible Leadership Scale-Revised version two (SRLS-R2). The SRLS-R2 was obtained with permission through the National Clearinghouse for Leadership Programs at the University of Maryland. This section was used to measure the dependent variables in the study which were students' values and outcomes of the Social Change Model (SCM). The second and third sections of the instrument were created by the researcher to measure the independent variables in the study, as well as determine the demographics of the population. The second section of the instrument was used to measure the students' college leadership experiences, including participation organizations, community service

activities and leadership education. To examine organizational involvement, the instrument focused on type of organization, leadership positions held, length of involvement, and number of different organizations involvement. Pertaining to community service activities, the instrument sought to determine the type of service, frequency of service, and percentage of students involved. Regarding leadership education, the instrument examined the length of experience and level of participation. Finally, the third segment of the instrument was utilized to obtain demographic information from the participants, such as gender, class level and college major.

The Original SRLS Instrument

The Socially Responsible Leadership Scale was originally developed as part of a doctoral dissertation by Tyree (1998). The 103-item self-reporting instrument was developed to measure the process of leadership presented by the SCM. The SRLS consisted of eight constructs, with 12-14 questions per construct. The constructs were identified as (1) Consciousness of Self, (2) Congruence, (3) Commitment, (4) Collaboration, (5) Common Purpose, (6) Controversy with Civility, (7) Citizenship, and (8) Change. Primarily designed for use with college students, the instrument can also be used with a variety of groups in different environments (Tyree, 2001). During the initial pilot testing of the SRLS instrument, it was found that the length of the instrument negatively affected the response rate. This version was later revised to decrease the number of items of the instrument.

SRLS-R2 Instrument

The revised version of the SRLS was designed to maintain the reliability of the instrument while decreasing the number of items. The SRLS-R2 is a shorter, 68-item

instrument with the same eight constructs with 6-11 questions per construct (Dugan, 2006). Reliability for the constructs of Consciousness of Self, Congruence, Commitment, and Common Purpose have decreased slightly from the original SRLS to the current SRLS-R2. Reliability for the construct of Citizenship decreased substantially (0.92 to 0.77). Reliability scores increased for the constructs of Collaboration, Controversy with Civility, and Change. Controversy with civility remained the construct with the lowest reliability.

Measurement Error

Validity.

Validity refers to “whether one can draw meaningful and useful inferences from scores on the instrument” (Creswell, 2009, p. 149). Specifically, face validity refers to whether the instrument appears to measure what it claims (Ary, et al., 2006). Content validity assesses the “degree to which a test samples content area which is to be measured” (Ary, et al., 1972, p. 191). A panel of experts examined the questionnaire for face and content validity. Panel members were asked to examine the face and content validity of the instrument and offer improvement suggestions. Changes recommended by the panel were completed and returned to the members for a final examination.

Reliability.

Reliability is the “degree of consistency that the instrument demonstrates” (Best & Kahn, 2003, p. 277). Along with a factor analysis, the SRLS-R2 was pilot tested and found to be reliable (Dugan, 2006). Table 3.3 displays the Chronbach’s alpha for each construct, comparing the original version to the revised version.

Utilizing test-retest, a pilot test was conducted to estimate the reliability of the second section of the instrument. The pilot group consisted of junior and senior students ($n = 29$) within the College of Education. According to Ary, et al. (1972), calculating the coefficient of correlation (Pearson r) between the scores of the subjects on the two administrations of the instrument, offers an indication of its reliability. The Pearson r ranged from .44 to .94 with a mean of .79 for all 29 participants. Chronbach's alpha ($\alpha=.72$) was determined for the second portion of the instrument, which consisted of 17 items.

Data Collection

Prior to data collection, approval to collect data was requested and received from the Campus Institutional Review Board (IRB). Data were collected utilizing an online questionnaire via Qualtrics. Individual participants were invited through email to participate in the study and were provided the link to the survey. After the initial invitation, non-responders were sent three weekly email reminders to increase participation in the study. Once the participants had completed the survey, they were not sent any further reminders.

Data Analysis

Data were analyzed through SPSS. The alpha level was established *a priori* at .05. Descriptive statistics describing the sample were reported in addition to means and standard deviations. Objective one was analyzed by describing the mean and standard deviation for each of the eight outcomes on the SRLS-R2. Objective two was analyzed by describing frequency and percentage of participation in specific organizations, the number of organizations students claimed participation, as well as the leadership position

held in organizations. The mean and standard deviation of student perception of overall involvement was also reported. Objective three was analyzed by describing percentages and frequencies of student responses regarding participation in community service, including degree of participation, origin and type of service. The mean and standard deviation of student perception of overall involvement was also reported. The fourth objective was analyzed by describing the frequency and percentage of participation in short, moderate, and long leadership education experiences, as well as participation in specific leadership education programs. The mean and standard deviation of student perception of overall involvement was also reported. Finally, the fifth objective utilized multiple linear regression models to determine the variance in the leadership outcomes due to gender, organizational involvement, community service participation, and the various methods of leadership education. The dependent variables were the eight socially responsible leadership outcomes and the independent variables were organizational involvement, community service participation and leadership education. In this study gender is considered a confounding variable because it is not the focus of the study, but statistically it is related to the independent variables. The method utilized to control for the extraneous variable is to build the variable into the research design as an independent variable in the study. The analysis of more than one predictor in the regression model allows for a greater potential for predictive power as compared to a simple linear regression which only examines one predictor variable.

Summary of the Findings

Research Objective One

Students responded to items to determine the level of socially responsible leadership development. Of the eight outcome variables of the Socially Responsible Leadership Scale, the outcome of commitment, which reflected the students' perception of an investment in an idea or person, both in terms of intensity and duration that motivates the individual and drives the collective effort, had the highest mean of 4.44 ($SD = .51$).

In contrast, the outcome with the lowest mean was change with 3.76 ($SD = .46$). Change is the desire of making a better world and a better society for oneself and others through the collective efforts of individuals, groups, and communities working together to make that change.

Out of the four larger constructs, Individual, Group, Society and Change, the highest mean was found in Individual ($M = 4.19$, $SD = .45$), while the lowest mean was found in Society ($M = 3.76$, $SD = .46$).

Research Objective Two

When examining the level of organizational involvement, fifteen respondents (14.0%) identified themselves as participants of the Pre-Veterinary Medicine Club. Sixteen respondents (15.0%) chose None of the Above to the list of organizations in the College of Agriculture, Food and Natural Resources. Finally, 32 respondents (29.9%) chose Other.

A majority (74.7%) of the participants in this study were involved with two to five different organizations during their college career. Eight respondents (7.5%)

indicated having no organizational involvement and two respondents (1.8%) indicated participating in more than five organizations during their college career.

The researcher determined the frequency of student participation in leadership roles and found 14 students (13.1%) identified as serving as president during their college career. An additional 14 students (13.1%) identified as serving as vice president of an organization during their college career. Fifteen students (14.0%) identified as serving as secretary of an organization during their college career. Finally, 28 students (26.2%) identified as serving as a committee chair in an organization.

When asked to describe their overall level of involvement in organizations during their college career (1 = Not involved, 4 = Very involved), the calculated mean was 3.01 ($SD = .849$).

Research Objective Three

Students were asked to report their involvement in community service participation. A majority (92.5%) of the students reported as having engaged in community service during their college career. Further, a majority (67.3%) of students reported not ever taking a course that required a service learning component during their college career.

Concerning one-time community service events, 57% of respondents participated in one to three one-time events, 15% participated in 4-6 one-time events and 2.8% participated in more than seven one-time service events. In addition, 25.2% of respondents indicated they had not participated in any one-time community service events.

Regarding participation of students in community service on a regular basis, 44.9% of respondents did not participate in community service on a regular basis, 24.3% of respondents participated in community service once a month, 22.4% of respondents participated in community service once a week and 8.4% of respondents participated in community service several times a week.

Seventy two respondents (67.3%) completed community service with a student organization, 49 (45.8%) completed community service on their own, 43 (40.2%) completed community service as part of class, 33 (30.8%) completed community service in conjunction with a church. One respondent (.9%) chose other as the type of community service completed.

The three most frequent types of service included fundraising (48.6%), environmental clean-up (42.1%), and collecting food or supplies (37.4%).

In addition, when asked to describe their overall level of involvement in community service during their college career (1 = not involved, 4 = very involved), the calculated mean was 2.65 ($SD = .70$).

Research Objective Four

Students were asked to report their involvement with short-term, moderate-term, and long term leadership experiences. Regarding short-term experiences, 49.5% of respondents reported having participated in one to two short-term experiences. An additional 22.4% participated in three to four short-term experiences, 13.1% participated in more than five short-term experiences and 15% reported no experience with short-term leadership experiences. In reference to moderate-term leadership experiences, 39.3% of respondents reported having participated in one to two experiences, 12.1% of respondents

participated in three to four experiences, 6.5% participated in more than five experiences, and 42.1% of respondents reported no experience with moderate-term leadership experiences. Finally, regarding long-term leadership experiences, 25.2% of respondents reported participating in one to two experiences, 3.7% of respondents participated in three to four experiences, 1.9% of respondents participated in more than five experiences, and 69.2% of respondents reported no experience with long-term leadership experiences.

Students were then asked to report their involvement with specific leadership programs. The leadership program with the highest frequency of participants was the CAFNR Student Organization Leadership Academy (SOLA) with 11.2% of respondents having participated in the program. An additional 3.7% of respondents indicated participation in the Agricultural Leadership minor and 1.9% of respondents indicated pursuing an Agricultural Education major with an emphasis in leadership.

When asked to describe their overall level of involvement in leadership education during their college career (1 = not involved, 4 = very involved), the calculated mean was 2.23 ($SD = .94$).

Research Objective Five

Eight separate linear regression models were analyzed to determine the impact of organizational involvement, community service participation and leadership education on the development of socially responsible leadership. The variable of gender was considered the confounding variable. Regarding the model for the outcome variable, common purpose (CP), explained 15% of the variance in common purpose and was significant at $p = .003$. In addition the outcome variable, citizenship (CZ), explained 13% of the variance in citizenship and was significant at $p = .007$. Finally, the researcher

examined Group Values and found the model explained 9% of the variance in the group values and was significant at $p = .05$.

Conclusions and Implications

Given the limitations of the study, it is important to note that the conclusions can only be generalized to the relevant population.

Research Objective One

Describe college students' development of socially responsible leadership based on the eight outcomes of the Socially Responsible Leadership Scale-R2.

Conclusions: Objective One

Based on the findings of the development of socially responsible leadership in college students, it can be concluded that the University of Missouri's College of Agriculture, Food and Natural Resources juniors and seniors' socially responsible leadership self-perceptions vary only slightly among the eight socially responsible constructs. When examined in real limits, the students rate themselves within the Agree limit for all eight constructs. In addition, when the overarching constructs are examined, it can be concluded that again, the results vary only slightly within the real limits of the scale. All results fell within the Agree limit across all four overarching constructs.

Implications: Objective One

Even though the findings may be sparse, valuable information can be gleaned. If students perceive themselves high in socially responsible leadership, does this imply that the students are receiving non-hierarchical leadership development in the college setting? The conclusions of objective one could imply that junior and senior students at the

University of Missouri in the College of Agriculture, Food and Natural Resources have a high self-efficacy in their own perceptions of their leadership development.

These findings mirror the results of a large research study of over 50,000 students which reported highest SRLS scores in Commitment ($M = 4.24$) and lowest scores in Change ($M = 3.75$), even though all college class standings were examined as compared to the junior and seniors examined in this study (Dugan & Komives, 2007).

Finally, beyond the fact that the students perceptions of their leadership across the four overarching constructs, the students had a slightly stronger connection to individual values rather than group, society, or change. Therefore, it can be implied that the students have a high sense of consciousness of self, congruence and commitment as seen within the Individual Values perspective.

Research Objective Two

Describe college students' level of organizational involvement and participation.

Conclusions: Objective Two

Based on the findings of an examination of organizational involvement, it can be concluded that the students claimed membership to organizations not listed within the College of Agriculture, Food and Natural Resources. Upon examination, it was determined that there was not a pattern of organizations listed by the students.

It can also be concluded that participants in this study were involved with multiple organizations during their college career as compared to those that did not participate in organizations or those that participated in an excess of organizations during their college careers. Therefore, students are involved in several different organizations that require their time and dedication.

Finally, based on the findings regarding participation in leadership roles the researcher concluded that students most frequently served in positions with the least amount of responsibility, such as a committee chair of an organization, but to a lesser degree served in positions that require more responsibility, such as secretary, vice president and president of an organization.

Implications: Objective Two

The culture of the University of Missouri is one that values involvement and organizational participation. The conclusions of objective two imply that the junior and senior students within the College of Agriculture, Food and Natural Resources at the University of Missouri dedicate their time and energy to organizations both within the college and outside the college. Is the level of participation a direct outcome of the culture of the university?

Further, it can be implied that the students become involved with several different organizations while in college. This can be seen as a lack of commitment to one organization, but it may also indicate that as their college career progresses they are exposed to additional organizations worthy of their time. In a study by Dugan and Komives (2007), the researchers found that students involved in too many different types of organization negatively correlated with outcomes on the Socially Responsible Leadership Scale. The students' involvement with different organizations was not directly examined in this study and the impact of the results is unknown.

Finally, even though students are committing themselves to leadership roles, the most popular roles are those that require the least amount of responsibility. Are students simply looking to participate in a variety of organizations instead of fully dedicating

themselves to one worthy cause? It is important to note that the number of students dedicating themselves to leadership positions may be due to the selected population. Juniors and seniors have been in college longer and therefore have more years to dedicate themselves to organizations and choose to pursue leadership roles.

Research Objective Three

Describe college students' involvement in community service.

Conclusions: Objective Three

Based on the findings of the examination of community service participation, it can be concluded that students have engaged in community service during their college career, but are not engaging in service learning. Students are participating in only a few community service events that are not consistent or require much time or effort.

Students are not participating in community service on a regular basis.

It can be further concluded that students complete community service with a student organization, on their own, as part of class, or in conjunction with a religious organization. During these events, students are fundraising, cleaning up the environment, and collecting food or supplies. Upon examination of additional community service outlets, students listed caring for animals in shelters as an outlet for community service. Considering the selected population, this is expected from students pursuing an Animal Science degree or from those that are a pre-vet major.

Implications: Objective Three

Students within the College of Agriculture, Food and Natural Resources at the University of Missouri are participating in community service, typically as one-time events, not on a regular basis. Students may not have an excess of time to devote to

community service as this competes with a myriad of other activities and obligations. When compared to the percentage of students per year that engage in community service based on a study by the Cooperation for National and Community Service, a substantial difference is noted (CNCS, 2012). The students at the University of Missouri responded with a much higher percentage of participation than the national average. It could be that the selected population has a propensity for community service or there may be a difference of definition of community service between the two groups.

It can also be implied that the students are typically completing the community service with an organization and in the area of fundraising. It is unknown whether the fundraising is specifically for the organization or as a donation for a specific need. It was interesting that the students stated they were involved with community service and a percentage indicated their community service was in conjunction with a class, but then denied participation in service learning courses. This discrepancy may be due to a lack of understanding of what a service learning course entails.

Research Objective Four

Describe college students' participation in leadership education.

Conclusions: Objective Four

Regarding leadership education, it can be concluded that students participated in short-term experiences, while students did not participate in moderate-term leadership experiences or long-term leadership experiences. In addition, students most frequently participated in the CAFNR Student Organization Leadership Academy (SOLA).

Very few students reported participation in the Agricultural Leadership minor or the Agricultural Education major with an emphasis in leadership. Other programs listed by students included the Litton Leaders Program, Emerging Leaders and NROTC.

Implications: Objective Four

The conclusions of objective four imply that the students within the College of Agriculture, Food and Natural Resources at the University of Missouri choose to participate in short-term leadership experiences rather than moderate to long-term leadership experiences. This may be due to students starting leadership education on a trial basis or a lack of time available to devote to the longer programs. Even attending one short-term leadership program is shown to result in significantly higher leadership outcomes than those who had no training (Dugan & Komives, 2007).

In addition, from the conclusions it can be implied that students are not taking advantage of the leadership programs available to them. Whether they are aware of the leadership programs available through the College of Agriculture, Food and Natural Resources is unknown. Of the programs listed, the Student Organization Leadership Academy (SOLA) was most attended, which makes sense as it is the most well-known organized leadership education program in the College of Agriculture, Food and Natural Resources.

Research Objective Five

Describe the extent to which gender, participation in organizations, community service, and leadership education contribute to college students' socially responsible leadership outcomes within the College of Agriculture, Food and Natural Resources.

Conclusions: Objective Five

Based on the findings of the impact of gender, organizational involvement, community service participation and leadership education of junior and senior students at the University of Missouri within the College of Agriculture, Food and Natural Resources on the eight outcomes of the socially responsible leadership scale, it can be concluded that the only variables impacted were common purpose, citizenship, and the overarching construct of group values. In addition, it can be concluded that common purpose was most influenced by the independent variables, followed closely by citizenship and finally the group values.

Implications: Objective Five

Based on the conclusions it can be implied that students participating in organizations, community service, and leadership education have an increased leadership score in the common purpose construct. Therefore, students are learning skills necessary for building a group's vision and purpose through shared aims and values (HERI, 1996).

In addition, the conclusions imply that students participating in organizations, community service, and leadership education have an increased leadership score in the citizenship construct. It can be further implied that participating in leadership activities has led to the ability of the individual to become responsibly connected to the community and the society through the leadership activity, fostering interdependence and a responsibility for the welfare of others (HERI, 1996). It is an interesting finding that the students ranked themselves lowest on the outcome change, but an impact was seen on citizenship. Both outcomes describe the importance of community and society impact. It may be that the students that participated in the different leadership experiences were

better at seeing themselves as agent of change, as well as the importance of responsibility to their community.

It is important to note the possibility of a confounding variable with high school leadership experiences. Specifically, many students within a College of Agriculture, Food and Natural Resources have experienced opportunities such as FFA during their high school career. FFA has a foundational focus on developing premier leaders, therefore the impact of high school experiences on the development of socially responsible leaders in college is unknown.

Recommendations

The first recommendation from this study is for educators and organizational sponsors to aim to influence the culture by rewarding involvement and leadership within organizations more so than rewarding the number of organizations a student pledges membership. If more students are able to see the benefit of true dedication to a cause, the culture may shift from the number of organizations in an email's tag line to an organization being a vehicle for making a difference on and off of campus.

The second recommendation from this study would be to increase the students' exposure and experience in leadership roles. Within a college course, a student can practice leadership roles through group and team activities, whole class activities and outside of class activities and assignments. Allowing for practice will only increase the exposure and experience of being in a leadership role, which may propel students to seek other leadership outlets. Promoting leadership experience could empower students to see themselves as a vehicle for change.

The third recommendation from this study is the incorporation of service learning projects within a course. The course itself does not need to be designated a service learning course to provide students with community service experiences. Educators should also educate themselves on the differences between community service and service learning so that the most rich and valuable experiences are being offered to students.

The fourth recommendation from this study is to increase student access and experience with leadership programs. This could manifest as a course component or added certification in leadership. In conjunction, promoting certain leadership programs that have previously been exclusive to the College of Agriculture, Food and Natural Resources may be beneficial in reaching a wider range of participants.

Finally, educators should teach for socially responsible leaders. Students should be presented with real world problems and controversial issues to gain experience in making socially responsible decisions. Providing significant problems without simple solutions can challenge students to consider options available to the leader and determine how to make decisions accordingly.

Recommendations for Further Research

The first recommendation for further research would be to replicate the study with other colleges with leadership components, specifically those programs that offer an Agricultural Leadership emphasis or major within their college or university, in order to determine whether socially responsible leadership is present within the student population.

Additional research is needed to examine the impact of the leadership culture on the University of Missouri campus and compare those findings to other campuses. Is the University of Missouri unique in its focus on organizational involvement? What could be the potential benefits or hazards of placing such an emphasis on involvement?

Further research is warranted due to the discrepancies in the findings. First, looking into why students might have said they have not participated in a service learning class, but then completing community service as part of a class. More information is needed to assess students' understanding of service learning and aspects of community service.

In addition, qualitative research is recommended to identify specific aspects of organizational involvement, community service and leadership education participation and the resulting views on socially responsible leadership development. Specifically, an examination into student efficacy in making positive societal changes within their communities or the approach programs utilize in teaching leadership. Are hierarchical practices more prevalent than non-hierarchical approaches in teaching leadership to college students?

Finally, further research is necessary in the area of the development of socially responsible leaders, specifically within the context of agricultural education and leadership. The research base in agricultural education and leadership is sparse. A better understanding of preparing socially responsible leaders is needed for the agricultural leaders of tomorrow.

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APPENDIX A

IRB Approval



Campus Institutional Review Board
University of Missouri-Columbia

485 McReynolds Hall
Columbia, MO 65211-1150
PHONE: (573) 882-9585
FAX: (573) 884-0663

February 28, 2014

Principal Investigator: Kovar, Kristin A
Department: Agricultural Ed and Leadership

Your Application to project entitled *Factors Influencing Socially Responsible Leadership Development of College Students* was reviewed and approved by the MU Campus Institutional Review Board according to terms and conditions described below:

IRB Project Number	1209033
Initial Application Approval Date	February 28, 2014
IRB Expiration Date	February 28, 2015
Level of Review	Exempt
Project Status	Active - Open to Enrollment
Regulation	45 CFR 46.101b(2)
Risk Level	Minimal Risk

The principal investigator (PI) is responsible for all aspects and conduct of this study. The PI must comply with the following conditions of the approval:

1. No subjects may be involved in any study procedure prior to the IRB approval date or after the expiration date.
2. All unanticipated problems, serious adverse events, and deviations must be reported to the IRB within 5 days.
3. All modifications must be IRB approved by submitting the Exempt Amendment prior to implementation unless they are intended to reduce risk.
4. All recruitment materials and methods must be approved by the IRB prior to being used.
5. The Annual Exempt Form must be submitted to the IRB for review and approval at least 30 days prior to the project expiration date.
6. Maintain all research records for a period of seven years from the project completion date.
7. Utilize the IRB stamped document informing subjects of the research and other approved research documents located within the document storage section of eIRB.

If you have any questions, please contact the Campus IRB at 573-882-9585 or umcresearchcirb@missouriedu.

Thank you,

Charles Borduin, PhD
Campus IRB Chair

APPENDIX B

Letter to Students

Dear student,

You are invited to participate in an exciting research project titled *Factors Influencing Socially Responsible Leadership Development of College Students*. As part of my dissertation in order to receive a PhD in Agricultural Education & Leadership, I value your participation. You were chosen to participate in this study because you are a junior or senior within the College of Agriculture, Food and Natural Resources and your contribution would be beneficial to the outcome of the study. Participation includes an online questionnaire that should require approximately 20 minutes of your time. Participation is entirely voluntary and you may withdraw from the study at any time.

The purpose of this study is to investigate socially responsible leadership development in college students. Results of the online questionnaire will be analyzed in my dissertation of factors influencing college student leadership development and utilized in submissions to research conferences and journal articles. Responses will be completely anonymous as your identity will not be linked to this survey in any way.

A potential benefit for your participation in this study is the increased knowledge regarding college student leadership development. Leadership is a highly sought after skill necessary for recent graduates to increase their employability and likelihood of obtaining their first job or advancement in their future career. Contributing to this body of knowledge could aid in the development of leadership majors/minors, programs, as well as the enhancement of current programs.

Four random winners will be chosen to receive a \$25 gift card to the Mizzou Bookstore. Please send me an e-mail after completing the survey if you wish to enter the drawing. There are no known major risks to your participation in this research study.

You are encouraged to ask any questions, at any time, that will help you to understand how this study will be performed and/or how it will affect you. You may contact the principal investigator, Kristin Kovar at kakfhc@mail.missouri.edu or the investigator's faculty advisor, Dr. Anna Ball at ballan@missouri.edu. If you have any questions or concerns about this study or your rights as a study participant, you may contact the Campus Institutional Review Board for the University of Missouri at (573) 882-9585 or umcresearchcirb@missouri.edu.

Thank you for your time and consideration. Your contribution and participation is greatly appreciated. To participate, please click on the link located in the email.

Sincerely,
Kristin Kovar
Department of Agricultural Education & Leadership

Completing and returning the questionnaire constitutes your consent to participate.

Please keep this letter for your records.

APPENDIX C

Panel of Experts

Panel of Experts
(listed alphabetically)

Cassandra E. Harper, Assistant Professor
NAEd/Spencer Postdoctoral Fellow
Educational Leadership & Policy Analysis
University of Missouri
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Kristina Haug, PhD
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Ryan Knowles, MA Political Science
Social Studies Curriculum and Quantitative Research Methods
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APPENDIX D

Socially Responsible Leadership Scale

Socially Responsible Leadership Scale

Please read through each of the following items and indicate your agreement or disagreement. You should do this by circling the number that most closely represents your opinion about that statement. If you agree with a statement very much, circle a 5; if your agreement is more moderate, circle a 4; if you are not inclined to agree or disagree, circle a 3; if you disagree moderately, circle a 2; and if you disagree with the statement very much, circle a 1.

For the statements that refer to a group, think of any group of which you have been a part. This might be a formal organization or an informal study group. For consistency, use the same group in all your responses. You want to indicate your general feels about participating in a group.

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
1	2	3	4	5

- | | | | | | |
|---|---|---|---|---|---|
| 1. I am open to others' ideas. | 1 | 2 | 3 | 4 | 5 |
| 2. Creativity can come from conflict. | 1 | 2 | 3 | 4 | 5 |
| 3. I value differences in others. | 1 | 2 | 3 | 4 | 5 |
| 4. I am able to articulate my priorities. | 1 | 2 | 3 | 4 | 5 |
| 5. Hearing differences in opinions enriches my thinking. | 1 | 2 | 3 | 4 | 5 |
| 6. I have low self-esteem. | 1 | 2 | 3 | 4 | 5 |
| 7. I struggle when group members have ideas that are different from mine. | 1 | 2 | 3 | 4 | 5 |
| 8. Transition makes me uncomfortable. | 1 | 2 | 3 | 4 | 5 |
| 9. I am usually self-confident. | 1 | 2 | 3 | 4 | 5 |
| 10. I am seen as someone that works well with others. | 1 | 2 | 3 | 4 | 5 |
| 11. Greater harmony can come out of disagreements. | 1 | 2 | 3 | 4 | 5 |
| 12. I am comfortable initiating new ways of looking at things. | 1 | 2 | 3 | 4 | 5 |

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree			
1	2	3	4	5			
13. My behaviors are congruent with my beliefs.			1	2	3	4	5
14. I am committed to a collective purpose in those groups to which I belong.			1	2	3	4	5
15. It is important to develop a common direction in a group in order to get anything done.			1	2	3	4	5
16. I respect opinions other than my own.			1	2	3	4	5
17. Change brings new life to an organization.			1	2	3	4	5
18. The things about which I feel passionate have priority in my life.			1	2	3	4	5
19. I contribute to the goals of the group.			1	2	3	4	5
20. There is energy in doing something a new way.			1	2	3	4	5
21. I am uncomfortable when someone disagrees with me.			1	2	3	4	5
22. I know myself pretty well.			1	2	3	4	5
23. I am willing to devote time and energy to things that are important to me.			1	2	3	4	5
24. I stick with others through the difficult times.			1	2	3	4	5
25. When there is a conflict between two people, one will win and the other will lose.			1	2	3	4	5
26. Change makes me uncomfortable.			1	2	3	4	5
27. It is important to me to act on my beliefs.			1	2	3	4	5
28. I am focused on my responsibilities.			1	2	3	4	5
29. I can make a difference when I work with others on a task.			1	2	3	4	5
30. I actively listen to what others have to say.			1	2	3	4	5
31. I think it is important to know other people's priorities.			1	2	3	4	5
32. My actions are consistent with my values.			1	2	3	4	5
33. I believe I have responsibilities to my community.			1	2	3	4	5
34. I could describe my personality.			1	2	3	4	5
35. I have helped to shape the mission of a group.			1	2	3	4	5
36. New ways of doing things frustrate me.			1	2	3	4	5

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
1	2	3	4	5
37. Common values drive an organization.			1 2 3 4 5	
38. I give time to make a difference for someone else.			1 2 3 4 5	
39. I work well in changing environments.			1 2 3 4 5	
40. I work with others to make my communities better places.			1 2 3 4 5	
41. I can describe how I am similar to other people.			1 2 3 4 5	
42. I enjoy working with others towards common goals.			1 2 3 4 5	
43. I am open to new ideas.			1 2 3 4 5	
44. I have the power to make a difference in my community.			1 2 3 4 5	
45. I look for new ways to do something.			1 2 3 4 5	
46. I am willing to act for the rights of others.			1 2 3 4 5	
47. I participate in activities that contribute to the common good.			1 2 3 4 5	
48. Others would describe me as a cooperative group member.			1 2 3 4 5	
49. I am comfortable with conflicts.			1 2 3 4 5	
50. I can identify the differences between positive and negative change.			1 2 3 4 5	
51. I can be counted on to do my part.			1 2 3 4 5	
52. Being seen as a person of integrity is important to me.			1 2 3 4 5	
53. I follow through on my promises.			1 2 3 4 5	
54. I hold myself accountable for responsibilities I agree to.			1 2 3 4 5	
55. I believe I have a civic responsibility to the greater public.			1 2 3 4 5	
56. Self-reflection is difficult for me.			1 2 3 4 5	
57. Collaboration produces better results.			1 2 3 4 5	
58. I know the purpose of the groups to which I belong.			1 2 3 4 5	
59. I am comfortable expressing myself.			1 2 3 4 5	

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
1	2	3	4	5

60. My contributions are recognized by others in the groups I belong to.	1	2	3	4	5
61. I work well when I know the collective values of a group.	1	2	3	4	5
62. I share my ideas with others.	1	2	3	4	5
63. I do what I can to avoid conflict.	1	2	3	4	5
64. My behaviors reflect my beliefs.	1	2	3	4	5
65. I am genuine.	1	2	3	4	5
66. I am able to trust the people with whom I work.	1	2	3	4	5
67. I value opportunities that allow me to contribute to my community.	1	2	3	4	5
68. I support what the group is trying to accomplish.	1	2	3	4	5
69. It is easy for me to be truthful.	1	2	3	4	5

APPENDIX E

Leadership Experiences Questionnaire

Leadership Experience

The following questions pertain to your involvement with organizations during your college career. Organizational involvement can be defined as the investment of mental and physical energy into a recognized organization. Please thoroughly answer each of the following questions.

How many different organizations have you been involved with during your college career?

- None
- 1
- 2
- 3-5
- More than 5

Please select all CAFNR organizations you have been a member of during your college career. Select all that apply.

- Alpha Gamma Sigma
- Alpha Gamma Rho
- Alpha Zeta
- CAFNR Ambassadors
- CAFNR Student Council
- Farm House Fraternity
- Independent Aggies
- MANNRS
- Mizzou 4-H
- Mizzou FFA Alumni
- Sigma Alpha
- MU Collegiate Horseman's Association
- Shooting Club
- The Agricultural Economics Club
- The Mizzou Collegiate Farm Bureau Chapter
- Ag Ed REPS
- Ag Ed Society
- Agricultural Systems Management Club
- Alpha MU
- Biological Engineers Club
- Torque-N-Tigers
- Block & Bridle

- Collegiate Cattle Woman's Association
- Pre-Veterinary Medicine Club
- Rodeo Club
- Meteorology Club
- Mizzou Storm Chase Team
- Biochemistry Club
- Environmental Science Club
- Sustain Mizzou
- Soil and Water Conservation Society
- Student Parks, Rec and Tourism Association
- Fisheries and Aquatic Sciences Society
- Wildlife Society
- Food Science Association
- Phi Tau Sigma
- Forestry Club
- Society of American Foresters
- Club Managers Association of America
- Eta Sigma Delta
- Hospitality Managers Association
- Mizzou Meeting Planners Association
- BBQ Team
- Agronomy
- Horticulture Club
- Golf Course Superintendents Association of America
- Agricultural Communicators of Tomorrow
- None of the above
- Other (please specify) _____

Considering your level of participation in college organizations, have you ever held any of the following leadership positions. These positions are beyond membership to the organization. Select all that apply.

- President
- Vice President
- Secretary
- Treasurer
- Committee Chair
- Captain
- Co-Captain
- Other (please specify) _____

Considering your involvement in organization(s) over your entire college career, how would you describe your level of involvement?

- Not involved
- Rarely involved
- Moderately involved
- Very involved

The following questions pertain to your involvement with community service during your college career. Community service can be defined as a commitment of time volunteered by individuals or an organization to benefit a community or its institutions. Please thoroughly answer each of the following questions.

During your college career, have you engaged in any community service (e.g., in a class, with an organization, independently, off-campus)?

- Yes
- No

During your college career, have you volunteered for any one-time service events (e.g., Relay for Life, Hike for Hunger, Global Day of Service)

- No
- 1-3 one-time events
- 4-6 one-time events
- 7 or more one-time events

During your college career, have you ever engaged in service on a regular basis (e.g., animal shelter, senior center, after school program)

- No
- I volunteered several times a week on a weekly basis.
- I volunteered once a week on a weekly basis.
- I volunteered on a monthly basis.

Regarding your community service experiences, has the service been completed in any of the following scenarios? Select all that apply.

- As part of a class
- With a student organization
- In conjunction with a church
- On your own
- Other (please specify) _____

During your college career, have you ever taken a class that required a service learning component?

- Yes
- No

If you have participated in community service during college, how would you describe the nature of your community service work? Select all that apply.

- Fundraising
- Teaching
- Tutoring
- Mentoring
- Environmental clean up
- Preparing or serving food
- Health care
- Collecting food or supplies
- Building or landscaping
- Other (please specify) _____

Considering your involvement in community service over your entire college career, how would you describe your level of involvement?

- Not involved
- Rarely involved
- Moderately involved
- Very involved

The following questions pertain to your involvement with leadership education during your college career. Leadership education can be defined as formal leadership courses, trainings and programs offering organized educational experiences. Please thoroughly answer each of the following questions.

During your college career, how often have you participated in the following types of training or education that developed your leadership skills?

Short-term experiences (e.g., individual or one-time workshop, retreat, conference, lecture or training)

- 0
- 1-2
- 3-4
- 5 or more

Moderate-term experiences (e.g., a single leadership course, multiple or on-going retreats, conferences, institutes, workshops, and/or trainings)

- 0
- 1-2
- 3-4
- 5 or more

Long-term experiences (e.g., multi-semester leadership program, leadership certificate program, leadership major or minor)

- 0
- 1-2
- 3-4
- 5 or more

How many courses have you completed that focused on leadership?

- 0
- 1
- 2
- 3
- 4 or more

Have you participated in any of the following long-term leadership experiences at the University of Missouri? Select all that apply.

- Leadership Certificate Program
- Multi-Semester Leadership Program
- CAFNR Student Organization Leadership Academy (SOLA)
- Senior Leadership Capstone Experience
- Agricultural Leadership Minor
- Agricultural Education Major with Leadership Emphasis
- Other (please specify) _____

Considering your involvement in leadership education over your entire college career, how would you describe your level of involvement?

- Not involved
- Rarely involved
- Moderately involved
- Very involved

The following questions pertain to your demographics. Please thoroughly answer each of the following questions.

What is your gender?

- Female
- Male

What is your current class level? (Choose one)

- Freshman
- Sophomore
- Junior
- Senior

What is your current major?

What is your minor? Please limit minors to three if you have multiple.

Please click the NEXT button below and you will then be directed to a website so that you can enter your information to be included in the chance to win the \$50 VISA gift card.

APPENDIX F

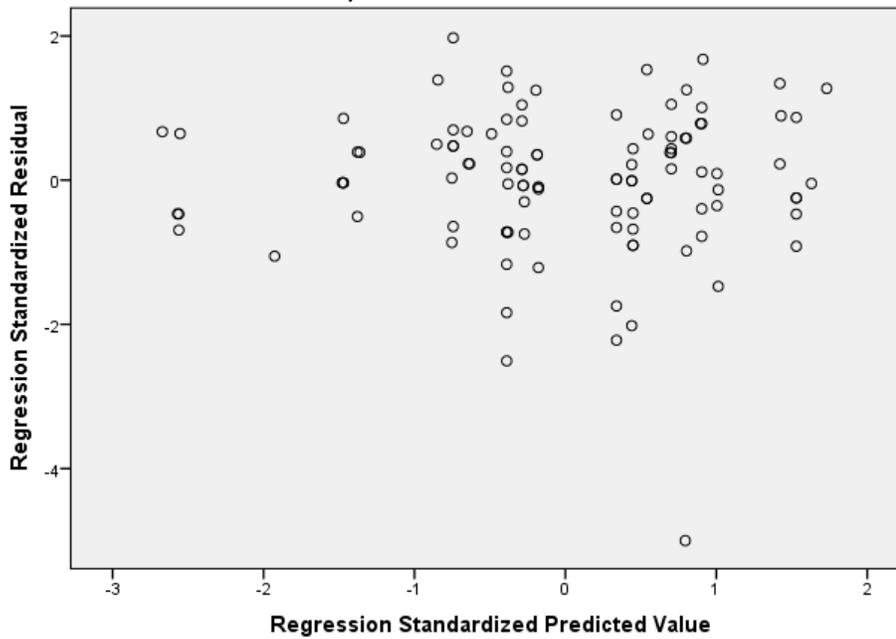
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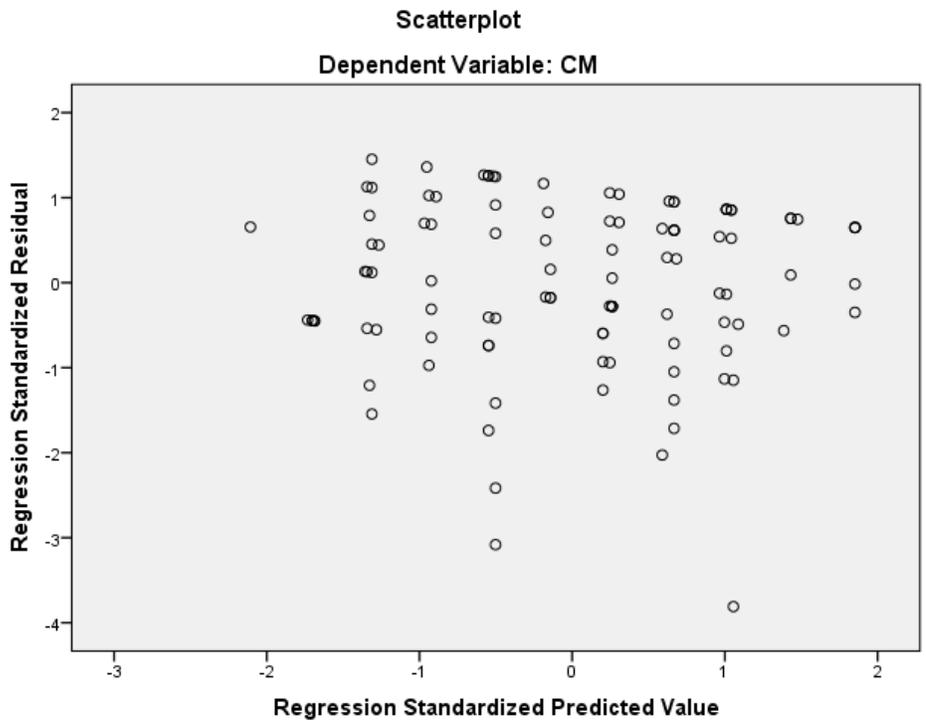
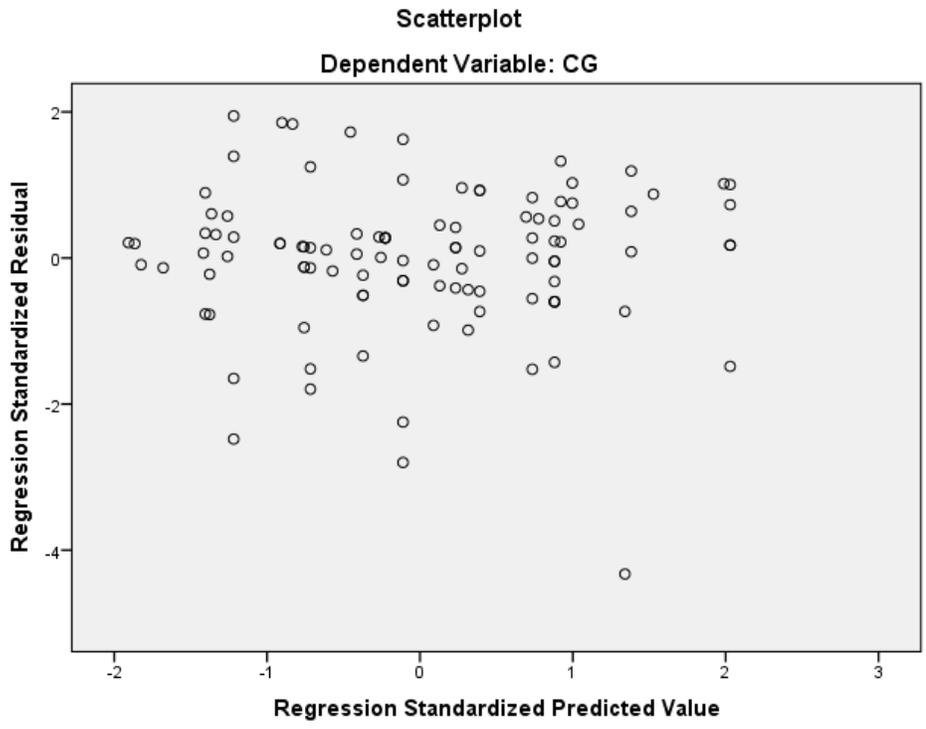
		ORG	COMM	LEAD
ORG	Pearson Correlation	1	.482**	.421**
	Sig. (2-tailed)		.000	.000
	N	105	105	105
COMM	Pearson Correlation	.482**	1	.368**
	Sig. (2-tailed)	.000		.000
	N	105	107	107
LEAD	Pearson Correlation	.421**	.368**	1
	Sig. (2-tailed)	.000	.000	
	N	105	107	107

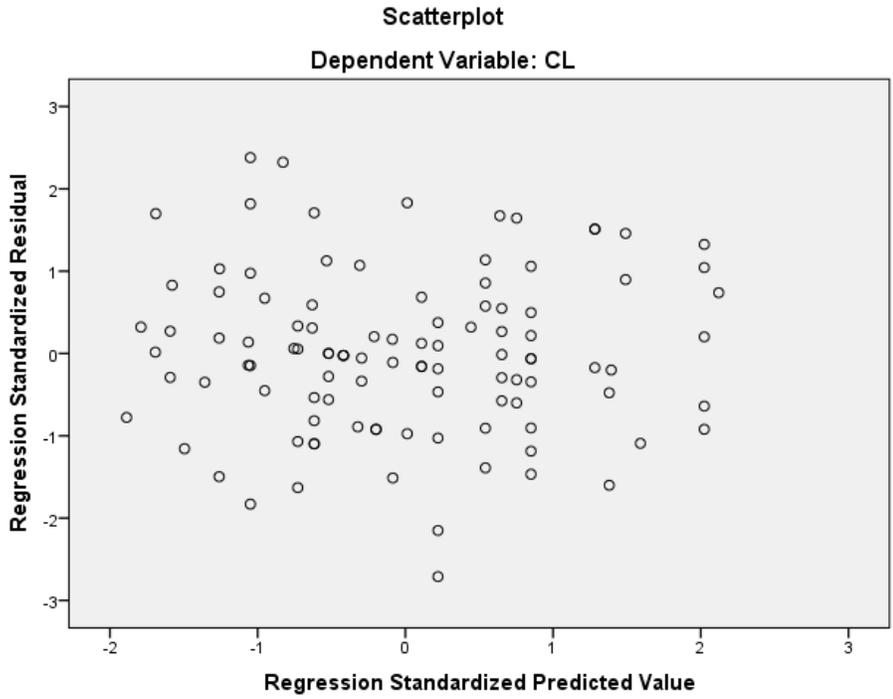
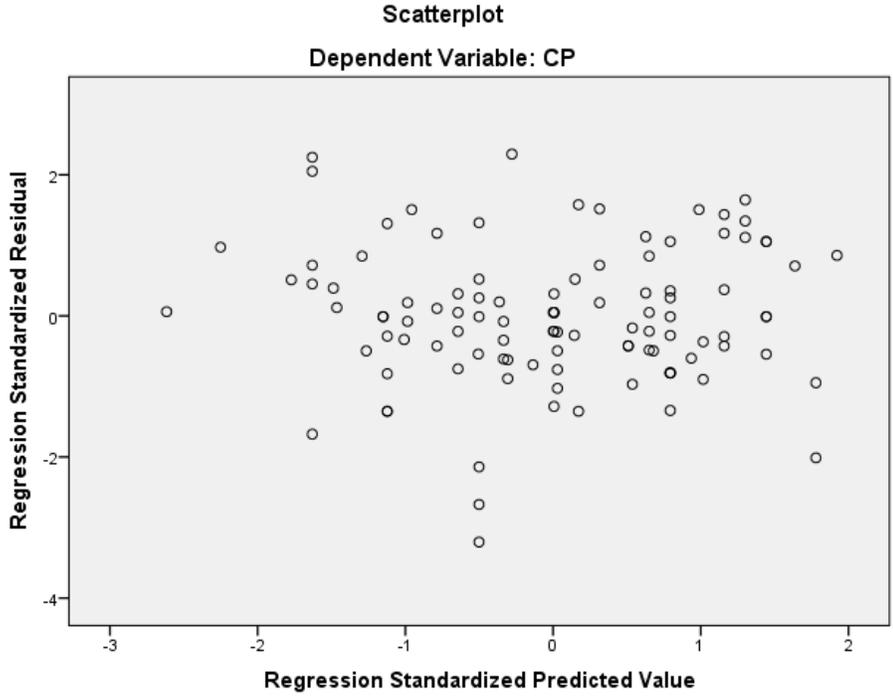
** . Correlation is significant at the 0.01 level (2-tailed).

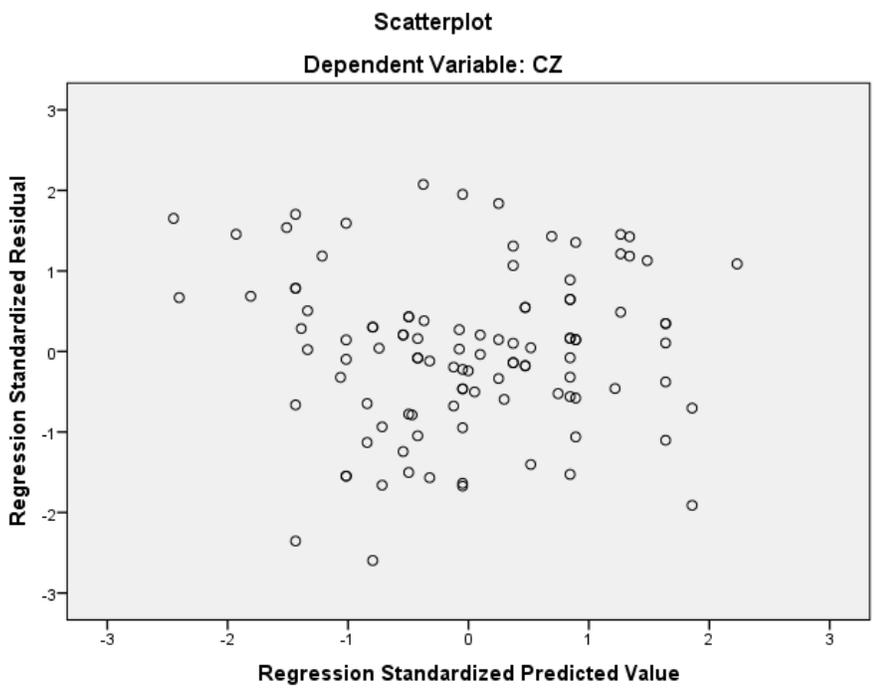
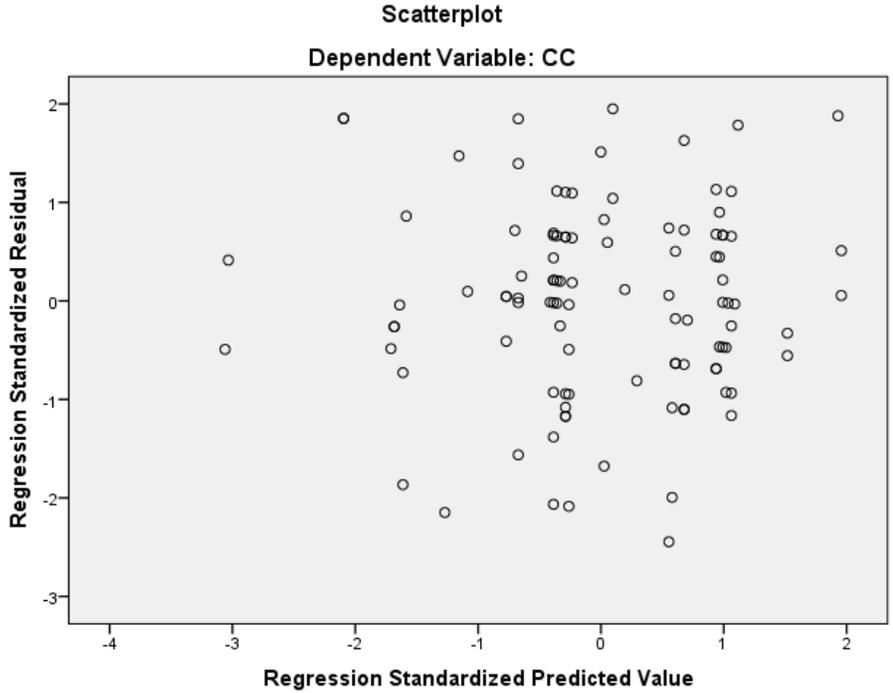
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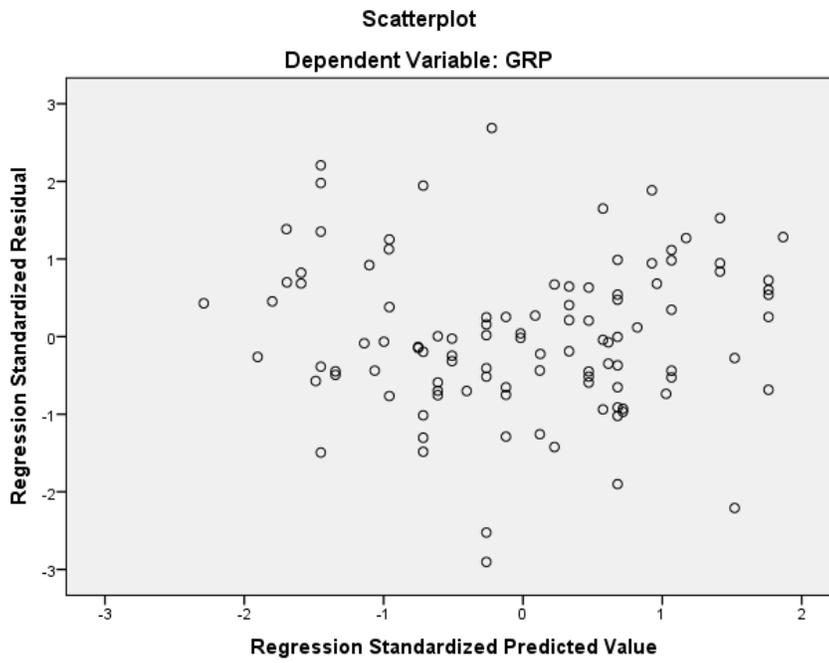
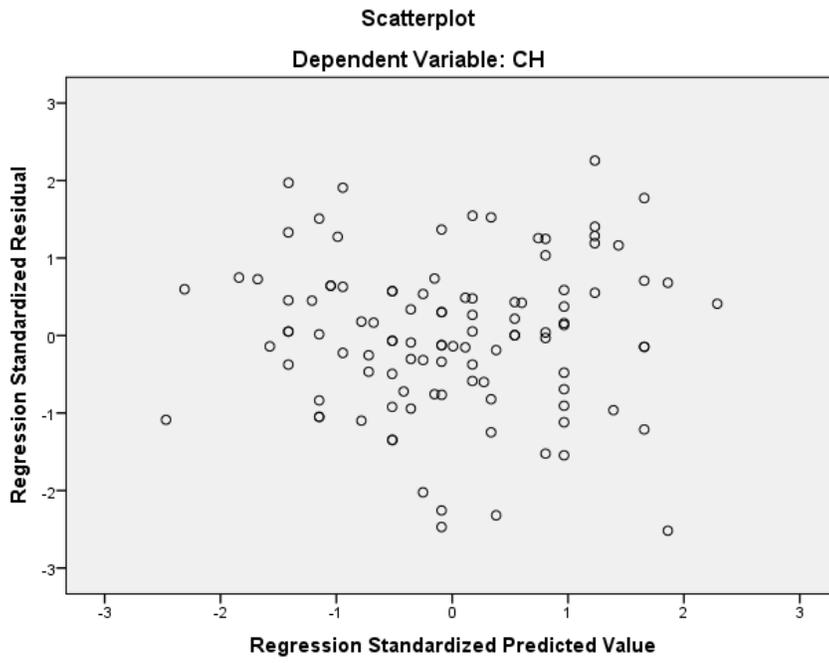
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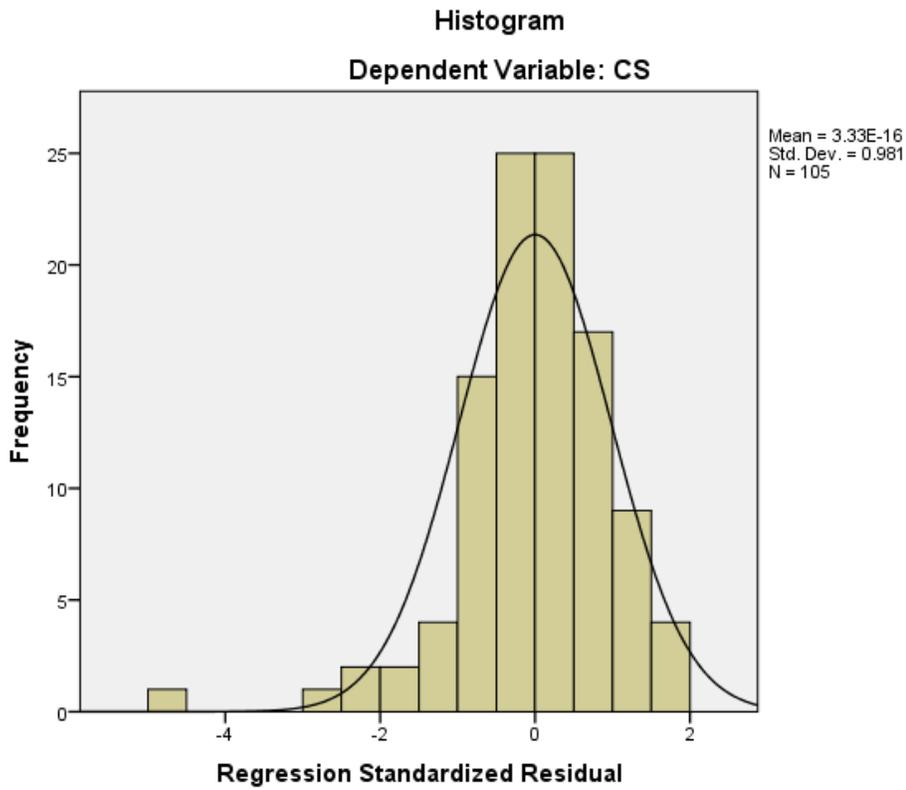
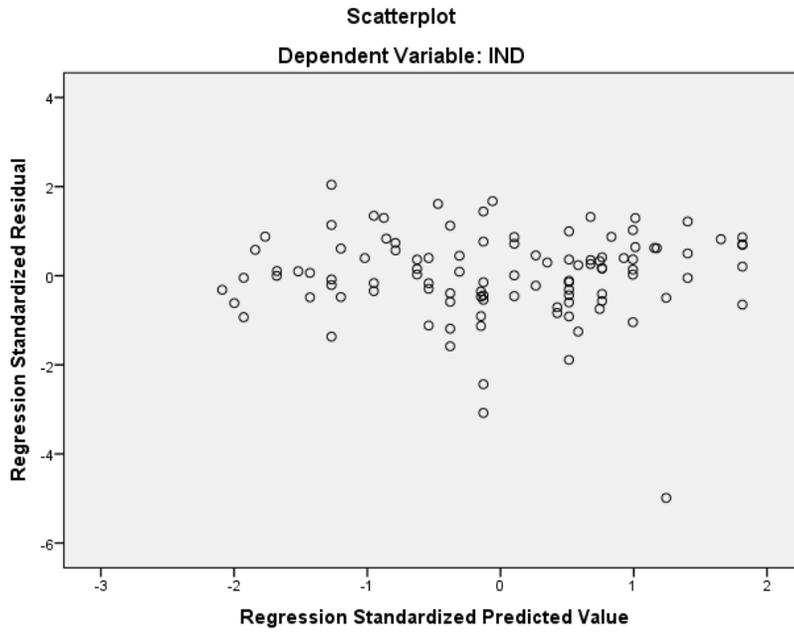


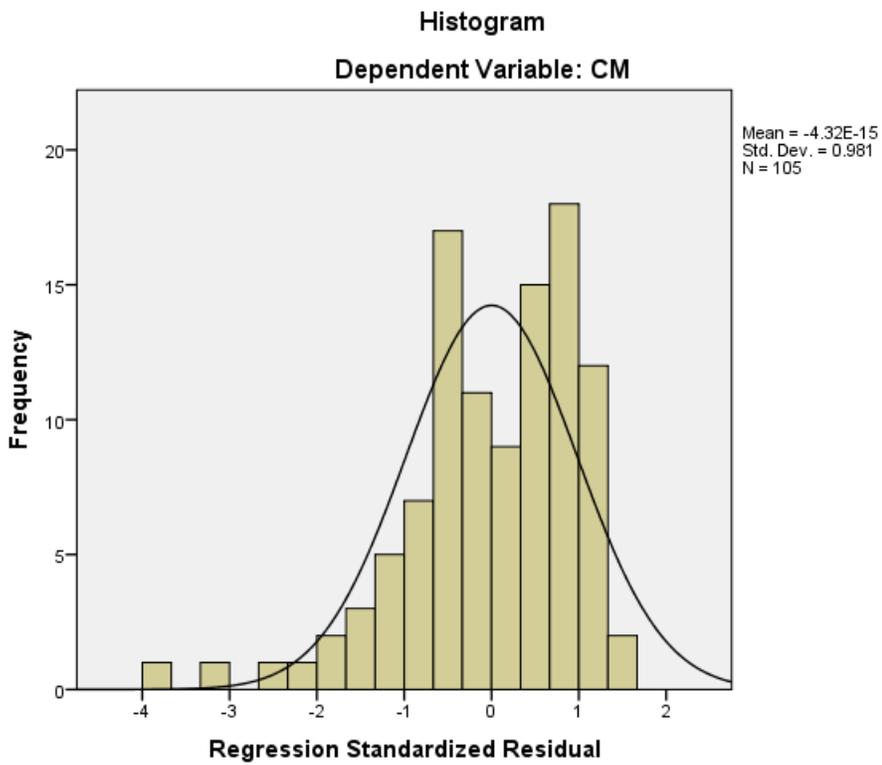
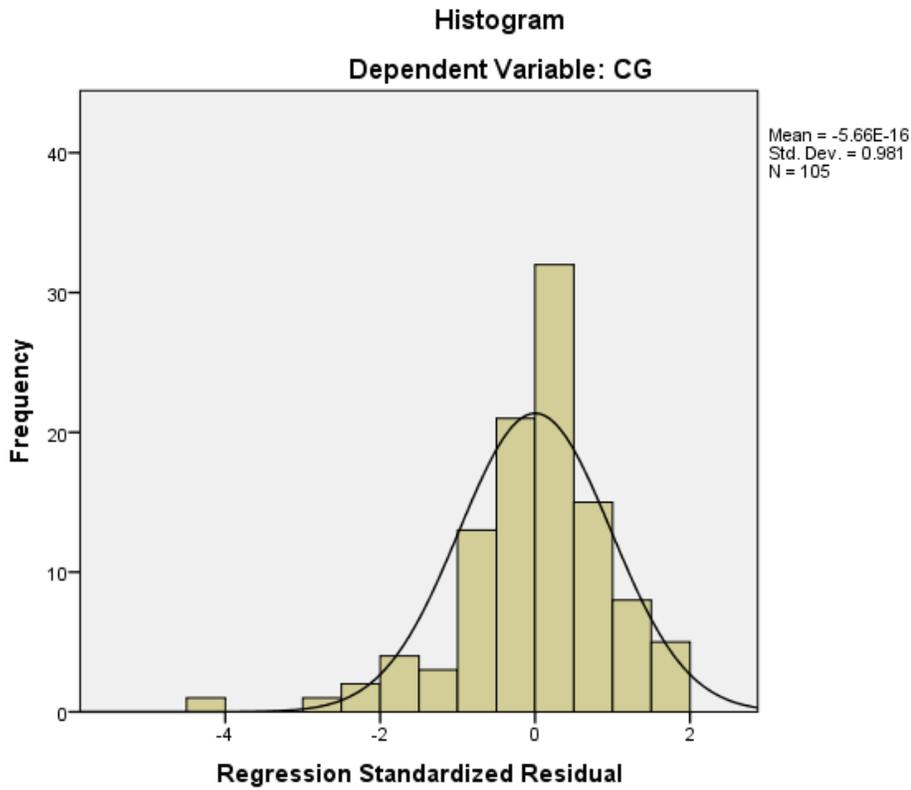


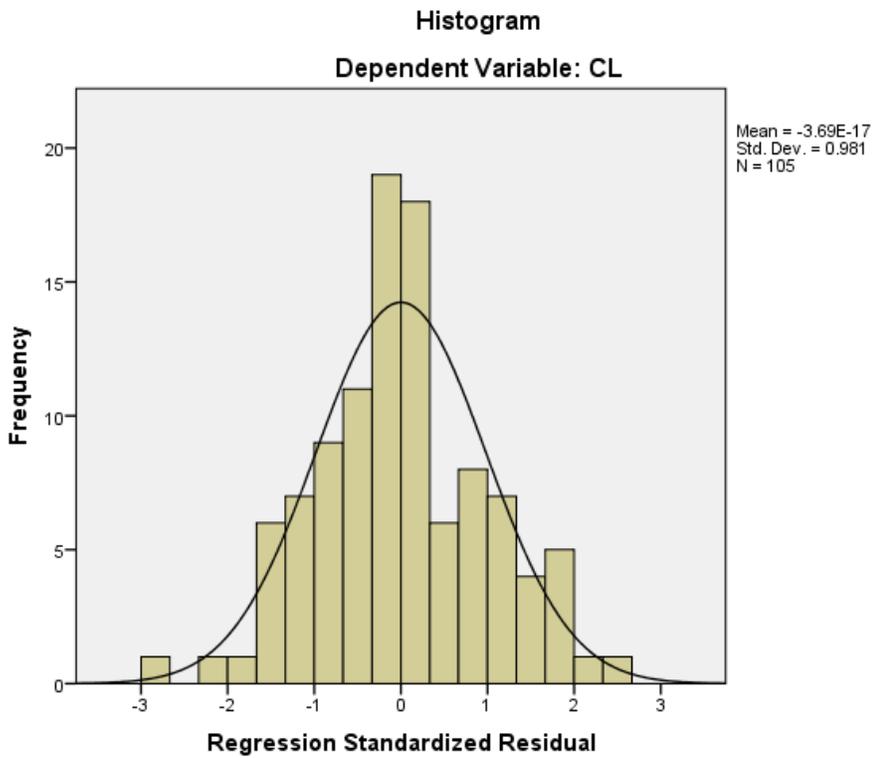
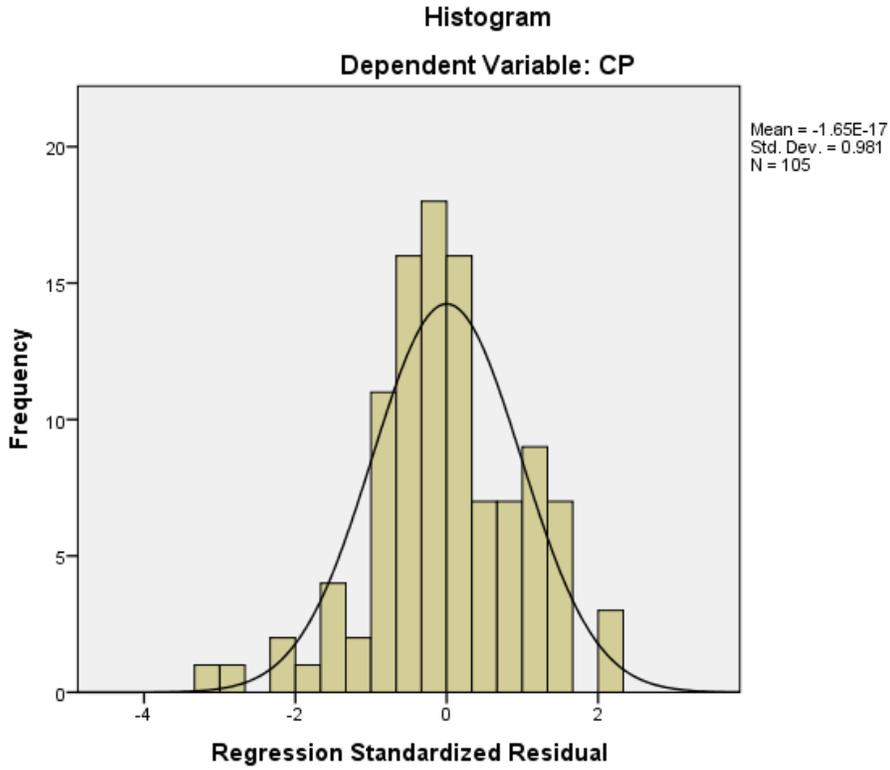


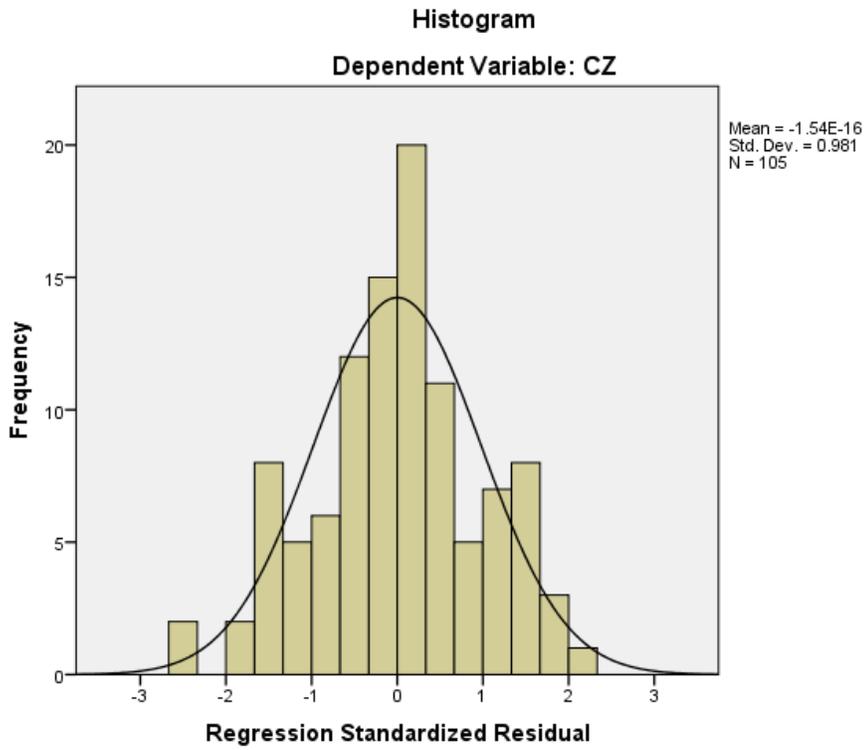
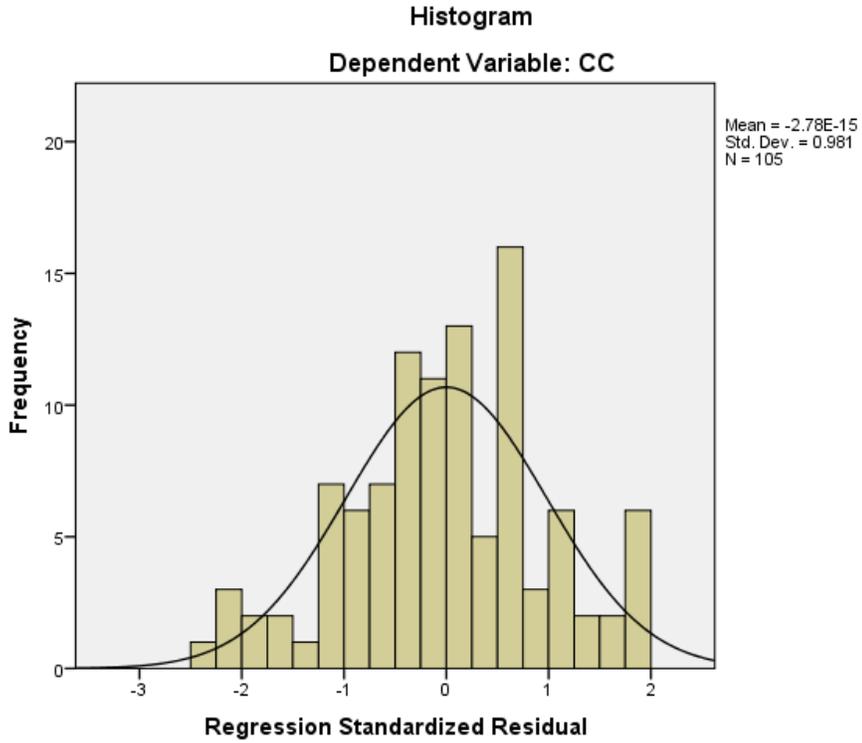


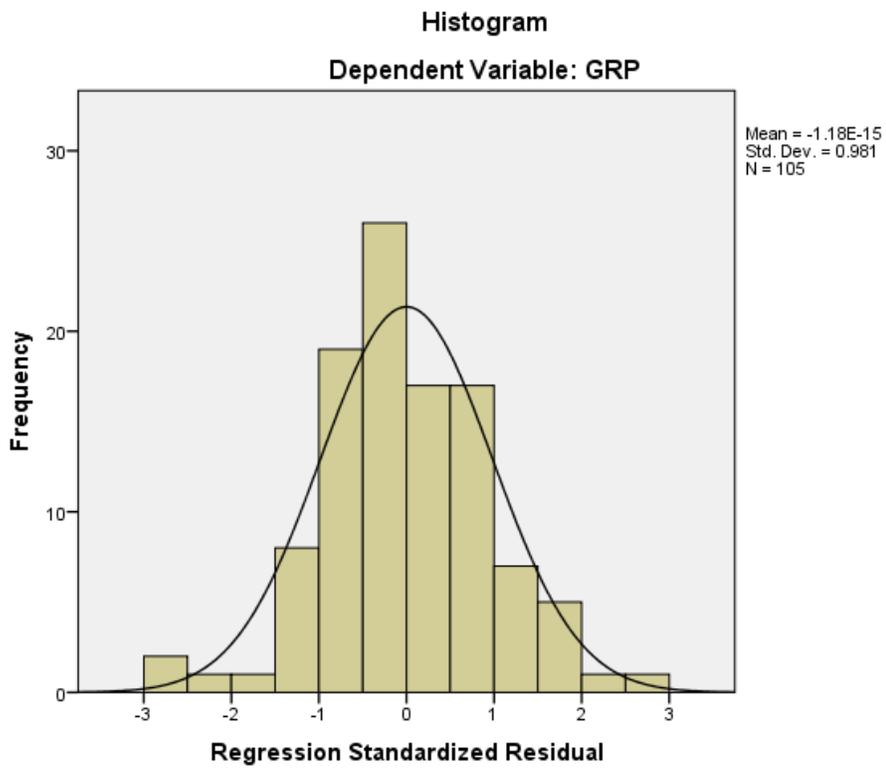
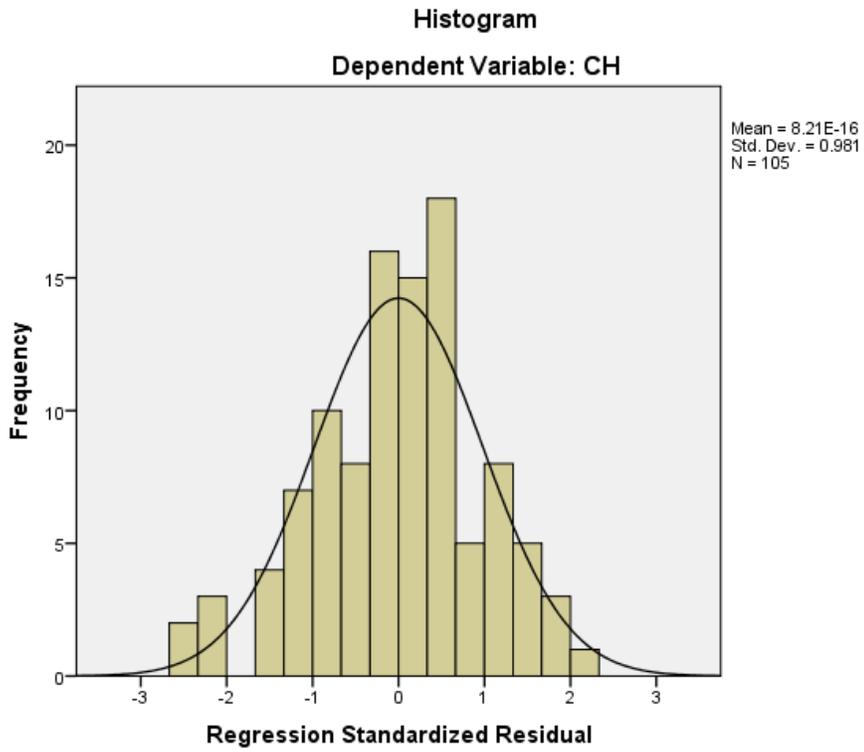


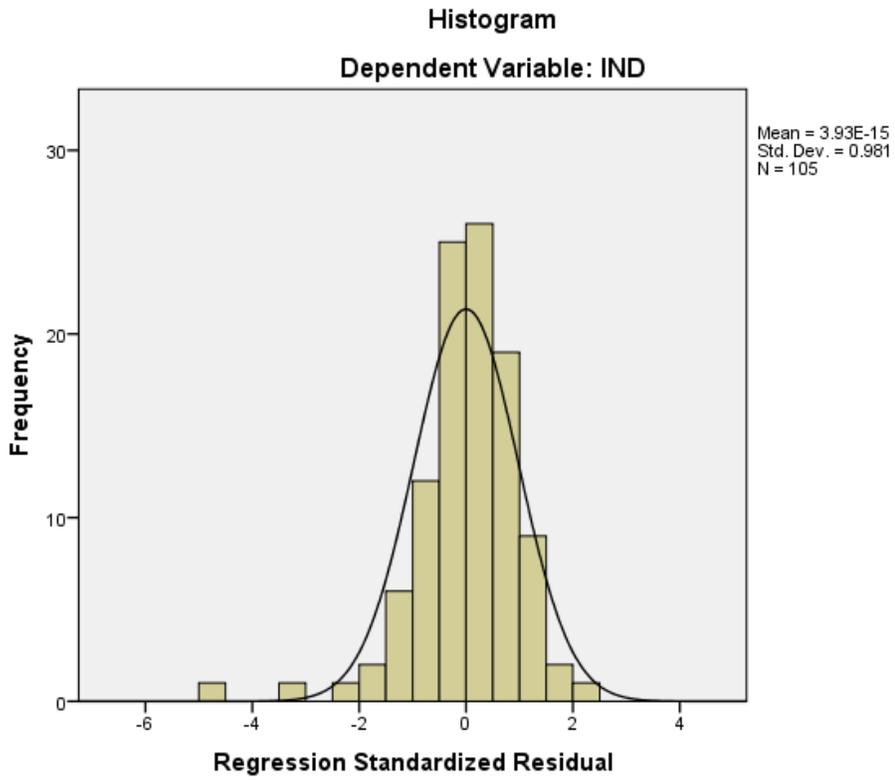












VITA

Kristin Kovar was raised in Ft. Walton Beach, Florida. She was the only child of two loving parents, a chiropractor and a housewife. With a love of learning, Kristin began her educational career graduating from Ft. Walton Beach High School in 1997. She was competitive in tennis, swim team, and flag core in her early years. She then obtained a Bachelor of Science in Animal Science with an Emphasis in Equine Science from Berry College in Rome, Georgia in 2001. During her time at Berry College, she rode competitively for the Berry College Equestrian Team in both Western and English riding disciplines. After a two year hiatus, Kristin began pursuing a Master's of Agricultural Leadership from the University of Georgia, graduating in 2005. During her time at UGA, Kristin served as the Sentinel of the Collegiate FFA and was an active member of Block & Bridle. Kristin then began her teaching career as the Agriculture teacher at Paulding County High School from 2005 – 2010. During this time she served as the Young Farmer for Paulding County Farm Bureau. With a passion for learning, Kristin accepted an opportunity to serve as a graduate assistant and Doctorate of Philosophy student in the Department of Agricultural Education and Leadership at the University of Missouri in 2010. Kristin earned her doctorate in 2014 and is excited about what the future may hold.