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Leadership Conceptualization : The Construct

Jessica Lee Francavilla
Montclair State University

Abstract

In the last two decades, the leadership conceptualization literature, already shrouded in confusion, has broadened from the traditional, hierarchical view to encompass systemic views that characterize leadership as a process, leadership as a property of the system, and leadership as an outcome. This study seeks to clarify the leadership conceptualization construct by (1) separating it from the leadership construct into its own construct to juxtapose the components of the four theories; (2) proposing and examining an antecedent to leadership conceptualization, leadership experience; and (3) exploring the component structure of leadership conceptualization to see if the range of leadership beliefs are developmental or independent. Two hundred and eighty-seven college student leaders and non-leaders were surveyed in their conceptualization of leadership as a process, as a property of a system, and as an outcome. Responses were correlated at the scale level to determine overlap between measures and theories and categorized into groups corresponding to theory while independent t-tests were used to highlight differences in conceptualization between leaders and non-leaders. Results showed that leaders and leaders differ in their conceptualization of leadership at the systemic level. They also revealed weak but significant relationships between theoretical components and suggested that leadership conceptualization is comprised of an independent set of beliefs. Implications for cognition, adult development, and leadership research and application are discussed.

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Leadership Conceptualization: The Construct

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Jessica L. Francavilla

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Thesis Committee:

[redacted]

Dr. Valerie Sessa,
Thesis Sponsor

[redacted]

Dr. Jennifer Bragger,
Committee Member

[redacted]

Dr. John Paul Wilson,
Committee Member

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JESSICA LEE FRANCAVILLA

Montclair State University

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I'd like to recognize myself, because I couldn't have done it without me. A big shout out is also warranted to: the dog I didn't get; the friends I never saw; the family who ceaselessly supported me despite my complaints/abstruse topics of conversation; the professors who tolerated my endless questions and desperate emails; and of course my tough-love and ever-present significant other for those two years, who will always have a piece of my soul, grad school.

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Introduction

An oft-quoted observation about leadership from half a century ago holds true today, communicating the state of leadership literature: "There are almost as many definitions of leadership as there are persons who have tried to define it" (Stogill, 1974). Rather than trying to create a single definition of leadership, in this study I instead attempt to understand the different ways that people conceptualize leadership, and what might influence their conceptualization. The purpose of this study is threefold: first, to suggest examining leadership by way of a new construct, leadership conceptualization, using a theory elaboration technique. I will consider, compare, and contrast 4 ways that leadership is currently conceptualized: as a relationship between leader, follower, and goals; as a systemic property; as a process; and as an outcome. Second, I suggest that leadership experience is an influence on leadership conceptualization; specifically, that individuals with leadership experience conceptualize leadership differently from those without leadership experience. Third, I will explore whether the component structure of the construct leadership conceptualization is developmental or independent.

Leadership Conceptualization Construct

Generally speaking, psychological constructs serve as more accessible representations of "inferred entities" (MacCorquodale and Meehl, 1948). The meaning of the term "construct" has been attributed varying levels of abstraction since it first surfaced over a century ago (Slaney and Racine, 2011), and has taken on the task of representing ideas ranging from the more concrete to the highly abstract. This has resulted in some disagreement about what, precisely, a construct is—how should we construct the construct? Currently, constructs are used in the literature in three ways: (1) as "real but unobservable objects of study in psychological research; (2) [as] theoretical (conceptual) heuristics that function both to summarize potentially large classes of

observables and foster ease of communication across members of a research community; and (3) [as representation of] the current state of accumulated knowledge pertaining to some focal phenomenon (i.e., objects under study)" (Slaney and Racine, 2011). With regard to constructions of leadership in particular there is great variability, resulting in concomitantly variant definitions, attributions, and characteristics attributed to those constructions (see Day and Harrison, 2007 for review). Defining "construct" does little to shed light on the nature of the construct of leadership (as opposed to a clearly defined construct such as, for example, Perceived Organizational Support, which in the literature clearly falls under usage category two). Yet despite this variability, there is some element of leadership that is irrefutably understood as leadership by all constructors (Drath, 2001). This essential element of leadership enables its constructors, whether as individuals, groups, or organizations, to see it and agree, "That's leadership!" (Drath, 2001). This undeniable element of the phenomenon supports the "real but unobservable" aspect of the construct leadership existing as a phenomenon that would still occur without individuals observing it, much less their understanding it. Therefore, conceptualization (also referred to in this paper as understanding, or construction) of leadership is distinct from leadership itself.

Theory elaboration. There are a number of ways to advance the greater body of research through theoretical contributions known as theory elaboration. Distinct from theory testing, which involves applying empirical data to a clearly hypothesized theory or model, theory elaboration occurs through clarifying or delineating the properties of theories that may be ambiguous, controversial, or inadequate (Fisher and Aguinis, 2017). Empirical literature often makes such contributions without identifying them, and these can be quite impactful (for more detail see Fisher and Aguinis, 2017). This can involve synthesizing, separating, or delineating theories and their components at the component level or the theory level (Fisher and Aguinis,

2017). Separating elements of a construct out into a separate construct is called construct specification (Fisher and Aguinis, 2017), and may be particularly useful for parsing and understanding complex constructs.

Leadership theory elaboration. For leadership research, specifying the leadership conceptualization construct has two implications. First, because leadership exists as a phenomenon it can be examined using a number of different methods ranging from interviews about how and what individuals conceptualize leadership as (with the epistemological development approach) to reliable and valid questionnaires designed to tap consistent, stable, decontextualized beliefs (with the epistemological beliefs approach) (Hofer, 2004). Secondly, leadership can be examined through virtue of clarifying and understanding its associated construct leadership conceptualization. That is, leadership can be better understood by looking beyond *what* leadership is to *how* it is conceptualized (and *where* those conceptualizations construe leadership in relation to other constructs in the nomological network). Using the construct specification technique of theory elaboration, and drawing on the construct-as-a-communication-heuristic function of the term construct, I suggest that specification of leadership conceptualization as its own construct will permit researchers to communicate more easily about its structural components and form, which in turn may clarify the construct of leadership. In line with this, in this study I focus on four notable ways leadership is conceptualized in the literature: (1) as consisting of a leader, follower, and their common goal; (2) as a property of the system; (3) as a process; and (4) as an outcome.

Conceptualizations of Leadership

Leadership as a "Tripod". Common to all traditional conceptualizations of leadership are 3 essential components (Drath et al., 2008). These are the "tripod" (McCauley, Drath, Palus,

O'Connor, and Baker, 2006) of leader, follower, and common goal. The tripod is compatible with traditionally structured, hierarchical organizations such as the military. The separation between leaders and followers is distinct through the ranking system: leaders are the more highly ranked members and followers are all who rank beneath them. The leader decides on and directs the goals of the group, and the members execute accordingly. Yet the tripod does not fully capture numerous processes and sources of influence, such as those occurring at the group level, in flatter organizations, and in start-up collectives.

Leadership as a process. According to Allen, Schitzer, and Wielkiewicz (1998) organizations range from using closed leadership processes on one end of the spectrum to having open leadership processes at the other. They view leadership as "a process involving interactions between individuals engaged in seeking information about feedback loops affecting an organization" (Allen et al., 1998). Closed leadership processes feature a leader or administrator who attempts to control information, relationships, and feedback loops (Allen et al., 1998). Closed leadership processes hold similar features as attributed to the tripod conceptualization of leadership, such as closed-door decision-making; hierarchical organizational structure; and credit and rewards to upper management for organizational success (Allen et al., 1998). Open leadership processes feature a designated leader or administrator whose job is to enhance the flow of information, foster relationships, and assist in nurturing shared purpose in organizations (Allen et al., 1998), very different from the information control goals of the closed leadership process leaders. Organizations, Allen et al. posit, closely resemble ecological systems in their degree of complexity and interdependence between and among levels. As with ecological systems, organizations are comprised of groups diverse in many ways, including in size, structure, and function. Individuals and groups are interconnected at individual, group, and

systemic levels with multi-level interactions occurring, creating intricate and dynamic systems. These complex systems are facing equally complex challenges, known as adaptive challenges, that are systems themselves, beyond the capacity of a single leader to effectively address. Examples of adaptive challenges include the need to live in an environmentally sustainable way, as well as the need to utilize the mass intimacy of our digitized interconnectedness mindfully with accurate and meaningful messages (Allen et al., 1998). When adaptive challenges are examined from Allen et al.'s perspective, it becomes apparent that these are not tasks for which one, two, or a few people to bear responsibility, but rather must be addressed at all the levels from which they are produced. Static, positional power and influence cannot effect intricate change in a dynamic, fluid system. Influence does not function in a vacuum, and mechanistic views of leadership that assume leaders can wield influence in an isolated system fail to capture the nuanced complexities at play (Allen et al., 1998). Indeed, complexity challenges an individual's ability to understand causality, as the cause and effect relationship is no longer linear, and the diverse, triangulated perspective of a collective becomes necessary to interpret and understand complex issues and events (Allen et al., 1998). This begs a theory of leadership that is up to the task. Two conceptualizations have emerged in recent literature that fit this description. First, in accordance with their theory of systemic challenges requiring systemic responses, Allen et al. posited a theory of leadership as a continually developing systemic process. A system is constantly responding to and incorporating feedback loops (Carpa, 1996) that create self-organizing properties which enable organic adaptation to the larger system. A successful organization capitalizes on as many feedback loops as are available (Allen at al., 1998) in order to align its properties along the path of least resistance in accomplishing its goals. In Allen et al.'s (1998) theory, every active voice that integrates a feedback loop into the system

plays a unique role in ordering the chaotic climate. Development, both personal and professional, breeds a readiness to adapt, and applied broadly to a diverse range of individuals, an organization is primed to recognize, analyze, and respond to many types of challenges. In this view, it is necessary to treat organizations as open systems and foster inclusivity to have as many members participate in the leadership process as possible. Organizations who practice leadership according to this view are participating in open leadership processes; organizations utilizing the more basic-level, traditional form of leadership as a form of tight, positional control are utilizing a closed leadership process.

Leadership as a property of the system. A second conceptualization of leadership also builds on and elaborates from the traditional, lower-level form of leadership to describe a complex, fluid, collaborative process as leadership (Drath, 2001). This theory, like the leadership as a process theory, is capable of capturing both hierarchical views and systemic complexities. However, this theory stems from the constructivist perspective that leadership is an activity that people engage in conceptualizing together. "Only thoughts, words, and actions that are recognized as leadership can constitute leadership" (Drath, 2001 p.6) This view sees leadership as a property of the system that creates it, and posits that people conceptualize leadership from three views: Personal Dominance, Interpersonal Influence, or Relational Dialogue (Drath, 2001). The views range from basic to complex, respectively, and dictate individuals' beliefs both about what leadership is and how and between whom it happens (Drath, 2001, p. 153), as well as how individuals think leadership can or should work.

The Personal Dominance view resembles the basic tripod conceptualization: leadership is hierarchically structured and positional. In this principle, leadership is a characteristic a person is born with, similar to the way a person is born with blue eyes or small feet. Leadership is an

inherent quality possessed by leaders that exists independent of followers. It is through this quality that leadership happens; leadership is endowed upon followers because "leadership happens when a leader acts" (Drath, 2001, p. 153). Leaders hold all the power in a group and followers adopt their world view. Power flows in one direction from the leader to the followers.

The Interpersonal Influence principle holds that a leader is one who emerges as most influential in a group to claim the role of leader. The leadership process is to negotiate power and influence with followers until he or she has the support of willing followers. Leaders use their characteristics (such as physicality or personality) to execute this process. The leader is one who secures support for a worldview that encompasses the follower world views. The power is bi-directional through virtue of its negotiation between leader and follower.

The Relational Dialogue principle holds that leadership is a process and a property of a social system. No one person is a leader; rather leadership emerges as an altogether new product of the system as its members create novel meaning from differing world views. This collective system collaborates to generate contexts in which the shared work can be performed. Actions individuals take to generate this context are seen not only as parts of the process of creating leadership, but constitute leadership themselves. The relational perspective is grounded in a constructionist framework (i.e., the view that meaning is contextual, and contexts are always in flux) and sensitive to the intricacy and fluidity of the meaning-making process and result (Drath, McCauley, Palus, Velsor, O'Connor, and McGuire, 2008). Actions from any member of a collective are interpreted within the context of the larger web of interactions and beliefs sustaining the collective's accomplishment of shared work. This view is strongly reminiscent of the leadership as a process view.

Leadership as an outcome. To discuss leadership in a manner that applies to a wide range of organizational structures, Drath et al. (2008) first acknowledged the enduring function of the traditional tripod conceptualization of leadership. They then proposed a new, functionalist ontology based on the premise that "One's conception of the *effects* of an object (that one is mentally constructing) *is the whole of one's conception of the object*" (Drath et al., 2008, italics in original source). Because the functionalist ontology defines leadership by its outcomes, it sees that leadership can occur in various types of scenarios as actions are performed by a variety of types of leaders. The components of these outcomes are defined as "leadership tasks," which are actions intended to provide the group with direction, alignment, or commitment (DAC). The tasks are defined by Drath et al. (2008) as follows: "*direction*: widespread agreement in a collective on overall goals, aims, and mission; *alignment*: the organization and coordination of knowledge and work in a collective; and *commitment*: the willingness of members of a collective to subsume their own interests and benefit within the collective interest and benefit." The leadership tasks are capable of capturing the various processes and sources of leadership without the restrictions of the tripod.

In Drath et al.'s ontology leadership is how an organization achieves its goals. Without DAC a group's effectiveness is compromised; with DAC, a group can feel comfortable in moving toward its goals without assigning responsibility for an organization's success or safety solely to one person or a few people. Flexibility in who or what bears responsibility is needed because one perspective is not capable of capturing, interpreting, or addressing the nuance of systemic causality (Allen et al., 1998). Diverse perspectives are needed to produce DAC in any way that is appropriate for them at that time. This flexibility means leadership does not have to come from one person--or a person at all. Rather, leadership can come from a behavior, a

message, a productive interaction, or even a policy aimed at direction, alignment, or commitment. Any action performed at any time by a member of a group in service of providing it with DAC is leadership. Similar to the ecological system view of leadership as a process, and to the Relational Dialogue principle of leadership as the property of a system, this ontology allows room to capture and interpret what is happening in dynamic and complex organizations.

Component Complexity Range. The traditional, basic view of leadership is embodied in the tripod and seen in the most basic levels of the leadership as a process theory (through closed process leadership), the leadership as a property of a system theory (contained in the Personal Dominance principle of leadership), and included in the application of the leadership as an outcome theory. It is starkly different from the higher-level, fluid view of leadership embodied in the leadership as a process theory (through open process leadership), the leadership as a property of the system theory (contained in the Relational Dialogue principle of leadership) and explicated in the leadership as an outcome conceptualization. Although all three of the recently proposed theories of understanding leadership begin with a more basic level of leadership conceptualization and suggest a more complex, systemic view, they offer different conceptualizations of what the systemic view looks like and its essential characteristics: Allen et al. emphasize leadership as a process, Drath emphasizes it as a constructive property, and Drath et al. emphasize leadership as an outcome. Thus their emphasis resides in different aspects of this more complex view. Researchers might wonder if these differing focuses may be synthesized for a more integrated view. A first step in theoretical parsimony is to find the least common denominators in the overlapping components of seemingly disparate theories, leading to:

RQ1. How are the components of the four leadership conceptualizations related?

Leadership Experience and Leadership Conceptualization

Leadership Conceptualization

In addition to examining leadership conceptualization, leadership can be explored through examining the antecedents to leadership conceptualization. To understand influence on leadership conceptualization, I concentrate on two groups of people: those with leadership experience and those without.

Cognitive neuroscience research links experience to adult development and learning (see May, 2011 for review). Learning occurs when the brain experiences structural or functional reorganization (May, 2011). This reorganization occurs in response to stimuli in the environment (including external forces, physiological changes, and internal/external experiences) which trigger adjustment to accommodate change (Pascual-Leone, Amedi, Fregni, & Merabet, 2005). This adjustment to accommodate change is part of learning, which can lead to a more developed view of the self and the world. Hence, experience leads to learning in general.

Theory suggests experience also leads to higher-level understanding and does so through identity (Lord and Hall, 2005). The self is a resource for learning, as one's interests, preferences, beliefs, and views affect the stimuli an individual chooses to direct attention and effort toward (Lord and Hall, 2005). The results of a study examining experience and development supported this: newly promoted executives were asked to recount their recent learning and encountered difficulty in remembering their experiences. When the same executives anticipated being asked this question again, they attended more closely to their experiences, self-awareness which yielded a richer learning experience (McCall, 2010).

Experience is also associated with leadership development in the leadership literature, which suggests that "to the extent leadership is learned, it is learned through experience (McCall, 2010)". Challenging experiences in particular impact leaders profoundly (McCall, 2010). Elements such as risk, novelty, complexity, or ambiguity that create challenging experiences also

create powerful ones (McCall, 2010). Experiences with such elements are likely to result in leadership development.

Challenging leadership experiences have been shown to lead to leadership skill development in another study (DeRue and Wellman, 2009), which used an aggregate measure of leadership skill based on Mumford et al.'s (2007) taxonomy of 21 leadership skills in four dimensions: cognition (e.g., critical thinking and information gathering); business (e.g., resource allocation); interpersonal (e.g. social perceptiveness and persuasion); and strategy (e.g., problem solving and systems perspective). Although the results supported a positive relationship (to an extent) between the variables and contained a variable of interest to leadership conceptualization, systems perspective, the individual variables were not parsed from the aggregate, leaving questions about how leadership experience relates to leadership conceptualization.

Two studies have examined the relationship of experience and leadership conceptualization, both on the college student population. One found that developmental experiences such as studying abroad, service volunteering, and participating in a creative art were associated with differences in systemic and hierarchical thinking (Wielkiewicz, 2000). The other, a grounded theory study, found that as students were trained in leadership their conceptualization of leadership changed such that they viewed leadership in more complex ways; i.e., more systemically and relationally (Komives, Owen, and Longerbeam, 2005). Though the relationship between leadership development training and leadership conceptualization was explored in Komives et al.'s (2005) study, the relationship between leadership experience and leadership conceptualization has not been measured, leaving questions such as:

RQ2. Do leaders and non-leaders understand leadership differently?

RQ3. Are leaders more likely to conceptualize leadership at the higher-order levels than non-leaders?

Personal Epistemology and Leadership

Epistemology literature describes how individuals construct knowledge and beliefs as *personal epistemology* (Hofer, 2004). Personal epistemology pervades tasks from the complex and ambiguous to the quotidian: how we interact with others depends on our reasons for believing they will react in certain ways; how we respond to a call from an unknown number depends on our justification for expecting a telemarketer (as opposed to a legitimate call) on the other end; where we get our news depends on which news source we believe we have reason to trust. Two theories describe the nature of this knowledge system of personal beliefs (Hofer, 2004). The epistemological development approach proposes a developmental knowledge structure in which information relies and builds on previous knowledge. New beliefs integrate with old in a particular, coordinated sequence, forming a growing network of interconnected beliefs (Hofer, 2004). New beliefs arise from subjective experiences that challenge previous beliefs about objective events, in line with the cognitive dissonance theory. In contrast, the epistemological beliefs approach suggests that beliefs are cognitive constructs that exist independently of each other. In this view knowledge components are not reliant on each other or necessarily interconnected. Specific to leadership conceptualization, understanding if and how knowledge components are related will have numerous potential benefits, including appropriate placement of the construct in the nomological network and developing factor scale measures appropriately specified to further criterion validity (Ashton, Jackson, Paunonen, Helmes, and Rothstein, 1995).

Leadership Conceptualization

Support for developmental epistemology approach in leadership research. The developmental perspective is evident in the leadership literature through Drath's (2001) theory of leadership as the property of a system. He proposes that leadership conceptualization is hierarchically structured such that each broader conceptualization rests upon the more narrow one(s), resembling an upside-down pyramid. This structural form is incorporated into subsequent theoretical studies examining leadership conceptualization in the literature (Day and Harrison, 2007) and leadership conceptualization in individuals (McCauley et al., 2006). McCauley et al. (2006) linked three stages in Kegan's (1982, 1994) taxonomy of constructive-development to Drath's (2001) three principles of understanding leadership along with their respective theorized leadership skills. In this taxonomy the more developed individual has a different, higher-order perspective on leadership than a less developed individual. Komives et al.'s (2005) grounded theory study provided empirical support for this finding in their results, which showed that college students' leadership conceptualization changed from lower-order hierarchical thinking to higher-order systemic thinking as they received developmental training.

Support for epistemological beliefs approach in leadership research. A study on college students' leadership conceptualization yielded results supporting the epistemological beliefs approach, with scores falling along two orthogonal dimensions ranging from lower-order hierarchical thinking to higher-order systemic thinking (Wielkiewicz, 2000). Participants could score high in both dimensions of Hierarchical Thinking and Systemic Thinking, low in both dimensions, or high in just one and low on the other. While implications were suggested for leadership styles related to individuals scoring high on one dimension and low on the other, none were proposed for individuals scoring high on both or low on both. This is a perspective that has not often been considered in the literature, which veers toward the developmental perspective.

Little research has addressed this discrepancy, which leaves room to explore the structural relationships of the leadership conceptualization components in attempts to better understand leadership itself.

Research question 4: Are leadership conceptualization components developmental or independent in structure?

Method

Participants

Participants were traditionally aged undergraduate students in a large northeastern public research university. They were recruited five ways. Three hundred nine participants were recruited through subject pool recruitment systems as a requirement for certain psychology courses and received course credit for their participation. Second, in a separate psychology course, 108 students were offered extra credit for taking the survey, with 87 participating. Third, 38 Greek leaders were invited to participate for leadership credit required by their association. Fourth, 14 of 120 resident assistants participated when petitioned through email by the community director. Finally, fliers inviting all students to participate in exchange for an entry in $25 Visa gift card raffle were posted on campus, eliciting 74 responses. In total, 524 students participated. One hundred forty-one incomplete responses were removed from the analyses due to four or more questions being skipped. Additionally, 31 careless responses were removed from the analyses. Carelessness was judged by using an attention check item contained within a measure that said, “If you are paying attention select Strongly Agree.” Any respondents selecting other than Strongly Agree were removed from the analyses. Next, because I was interested in traditionally-aged college students, 13 students who were above the traditional age (18 to 24 years) were dropped from further analysis. In addition, 42 students who held leader positions

outside of school but did not hold leadership positions on campus were removed from the data set to increase the precision of leadership measurement; i.e., to exclude self-proclaimed leader roles contaminating leadership measures. Thus, leadership measurement was confined to roles identified by the university as leadership positions. This left a sample of 287 students used for this study. The sample had an average age of 20.0 ranging from 18 to 24; 74.8% were female; 35.4% were freshmen, 14.3% sophomores, 23.8% juniors, and 18% seniors; 12.8% were black, 38.4% white, 31.3% Hispanic/Latino, 5.1% Asian, and 6.4% Other.

Procedure

Students filled out a 101-item online survey using a link received either by email, through the participant pool website, or through scanning a barcode on a flier. The survey took an average of 30 minutes to fill out. An online consent form was completed before proceeding to the online instrument, which contained leadership vignettes, a survey assessing beliefs about leadership, and demographic questions. After completion of the instrument, each participant was thanked for their participation and directed to write their name on a blank digital form in order to grant credit.

Measures

Demographics. Participants were asked their age, gender, ethnicity, major, and year in school using single, self-report items.

Campus group involvement level. Students were asked a number of questions pertaining to: their involvement in various campus clubs, organizations, and sports teams and any leader roles held therein; their paid positions in campus organizations; and their participation in the leader development minor or co-curricular leader programming during their college career.

Based on their responses they were categorized into the category of leader or non-leader. See Appendix A for the participation sheet used.

The leader group included students who currently hold, or have previously held, a leadership position on campus as well as students who participated in the leader development minor or co-curricular leader programming (*N* = 156, 54.2%). Leadership positions included elected roles in organizations (e.g., president of Student Government Association), along with the other roles that the university defines as leadership such as resident assistant, student ambassador, and office manager. Students who did not indicate involvement in any campus clubs, organizations, sports teams, paid university positions, or curricular/co-curricular leadership activities were placed in the non-leader group (*N* = 132, 45.8%).

Leadership as a process. Following Allen et al.'s (1998) theory, and using their definition of leadership as a process, Wielkiewicz (2000) created an instrument to assess college students' attitudes and beliefs about "the nature of leadership" and how they "think about leadership processes and how they expect leaders to function". Dubbed the Leadership Attitudes and Beliefs Scale (LABS-III), the two-dimensional scale has a Cronbach's alpha of .84 and consists of 14 items in each subdimension of Hierarchical Thinking ($\alpha = .88$) and Systemic Thinking ($\alpha = .84$). Hierarchical Thinking taps beliefs that organizations should be stable, hierarchical organizations housing power and control largely at its upper levels, which bear responsibility for the organization's success and its members' safety and security. A sample item is, "A leader should maintain complete authority." Systemic Thinking taps the belief that organizational success is related to many factors and their complex interactions. Such factors include ethics as well as the need for long term thinking; need for organizational learning; and need for all individuals' cooperation toward accomplishing organizational goals. A sample item

is, “Leadership processes involve the participation of all organization members.” Participants were asked to indicate their level of agreement with statements about leadership processes on a Likert scale (1 = strongly disagree to 5 = strongly agree).

Leadership as a property of the system. To assess individuals’ beliefs about leadership according to Drath’s (2001) principles of leadership, an unvalidated Beliefs About Leadership scale was used. The principles proceed from leader as an individual to leader as relational and then to leadership as a collective entity. In Drath’s first principle of leadership, personal dominance, leadership is seen as coming directly from the formal leader and is a personal characteristic of the leader. In the interpersonal Influence principle, leadership is seen as an influence process where the individual of greater influence emerges as the leader from a group conflict. In the relational dialogue principle, leadership is understood to happen when people participate in collaborative forms of thought and action to complete tasks and accomplish change. Sixteen items were developed for this instrument with five to six items reflecting each principle. Participants were asked to indicate their level of agreement on a Likert scale (1=strongly disagree to 5=strongly agree) with statements about the nature of leaders, leadership, and how they operate.

A Principal Components Factor Analysis with Varimax rotation was performed on the Beliefs About Leadership scale to determine the scale’s dimensionality. Three scales emerged with eigenvalues greater than one, explaining 52.8% of the variance (see Table 1). Two items loaded almost equally on to two scales: item 7 onto factors 1 and 2 (.54 and .55. respectively) and item 13 onto factors 1 and 3 (.55 and .56, respectively). These indicated confusion from the students about the questions and so these items were removed. After removing the two items the analysis was run a second time, yielding a three factor solution with 53.1% variance explained.

Factor 1, containing items 6, 8, 11, and 12, was labeled Interpersonal Influence (Cronbach's α = .82; a sample item is "Leadership only works if followers agree to follow the leader"). Factor 2, containing items 1, 2, 3, 4, 5, 9 and 10, was labeled Personal Dominance (α = .74; a sample item is "Under most circumstances, only 1 person can be the leader at a time"). Factor 3, containing items 14, 15, and 16 was labeled Relational Dialogue (α = .59; a sample item is "Agreeing on one particular point of view is not necessary for leadership to occur.") The Personal Dominance, Interpersonal Influence, and Relational Dialogue factor items were used to create associated subscales of the same respective names that were used in subsequent analyses. The three-item Relational Dialogue subscale was retained despite its low alpha for two reasons: first, Cronbach's alpha increases with scale length regardless of valid content, and because shorter scales will almost always have a lower alpha, this is not sufficient reason to discard them (Schmitt, 1996). Second, items unequivocally addressed the fundamental element of the construct: effectiveness despite disagreement. A sample item is, "Leadership can occur when a group of people agree to disagree and to accept the multiple views that occur in the world."

Leadership as an outcome, shown using principles of leadership as a property of the system. Nine (three sets of three) leadership policy-capturing vignettes written for a previous study examining the link between leadership experience and leadership conceptualization (Tacchi, 2015) were used after being edited for grammar and clarity (see Appendix B for comparison of original and edited content). These vignettes were chosen because they were designed to target understanding of leadership according to Drath's principles. They did so using questions about the occurrence of DAC in each. Three separate sets of vignettes were used so that recognition of leadership principles was not confounded by industry context; each set took place in a context of military, nonprofit, or for profit. The vignettes demonstrated leadership

according to Drath's principles of personal dominance, interpersonal influence, and relational dialogue; one principle was demonstrated per vignette, so each set contained three vignettes to represent all principles. Leadership was conceptualized and demonstrated as the occurrence of direction, alignment, and commitment tasks in accordance with Drath (2001) and conveyed in the vignettes using cues in accordance with policy-capturing literature. Across all vignettes consistent levels of detail and leadership task completion were contained. One vignette was included twice as a carelessness check. See Appendix B for a sample set of vignettes.

At the start of each vignette set, participants were given the definitions for the leadership tasks. Direction was defined as "Agreement on what the organization is trying to achieve together;" alignment as "Effective coordination and integration of the group when dealing with difficult situations, allowing the organization to come together in service of a shared direction;" and commitment as "Members of the organization are dedicated to and prioritize the success of the organization (not just their individual success) by becoming very involved in the process" (Drath et al,. 2008). They were then asked to read a description of an organization (i.e. organizational type, setting, number of employees, etc.). Next, they read a short description of a problem within the organization. In the three vignettes that followed, the organization found a solution through performing the three leadership tasks (i.e. cues) of setting direction, creating alignment, and maintaining commitment. However, the characters using the tasks and the process through which they were used varied according to the principle they depicted. After each vignette participants were shown the definitions for DAC and below, asked to indicate their level of agreement on a Likert scale 1 (Strongly Disagree) to 5 (Strongly Agree) on the following statements: (1) leadership occurred in this scenario; (2) direction occurred in this scenario; (3) alignment occurred in this scenario; and (4) commitment occurred in this scenario.

Leadership Conceptualization

Because the vignette measures had not been used more than once, and were used on an older population, I wanted to verify that these measures were appropriate for this sample (i.e., not too confusing to yield reliable responses). I ran reliability analysis on the vignettes (*put in a table that has all of them*). None of the alphas yielded a reliability of more than .65, with most alphas falling less than or equal to .51 (see Table 1). Due to the low reliability I concluded that the vignettes did not capture the differentiation in the principles of leadership and I did not include them in further analyses.

Table 1

Alphas for Vignette Measures of Leadership and DAC by Principle

Variable	Personal Dominance	Interpersonal Influence	Relational Dialogue
Leadership	.56	.55	.52
Direction	.48	.44	.50
Alignment	.51	.47	.53
Commitment	.50	.51	.65

Results

See Table 2 for means, standard deviations, and correlations of all variables.

Table 2

Descriptive Statistics

Variable	*M*	*SD*	*N*	1	2	3	4	5	6	7	8
1. Gender	-	-	275	-							
2. Race	-	-	273	.10	-						
3. Year in School	-	-	262	**-.14***	.03	-					
4. Hierarchical Thinking	3.71	.66	282	.01	.16	**.16****	-				
5. Systemic Thinking	4.17	.51	280	-.01	-.07	-.07	.11	-			
6. Personal Dominance	2.84	.70	288	.02	-.04	-.04	.07	**.18****	-		
7. Interpersonal Influence	4.14	.79	288	-.03	-.09	-.09	.02	**-.26****	.10	-	
8. Relational Dialogue	3.52	.72	288	-.03	-.08	-.08	**.12***	-.14	**-.18****	**.48****	-

*$p < .05$
**$p < .01$

Leadership Conceptualization

I first looked at the correlations to see if there was any association between the control variables between gender, race (white and nonwhite, African-American and non-African-American, Hispanic/Latino and non-Hispanic/Latino, and Asian and non-Asian), and year in school and the primary dependent variables. There was a significant correlation between year in school and Hierarchical Thinking ($r = .16$, $p < .01$).

Theoretical component relatedness. To address RQ1, which seeks to understand how the leadership conceptualization theory components are related, I examined the data in two ways. First, correlations between the measures for each model were examined (see Table 2). They revealed a significant and positive correlation between the lower-level components of Hierarchical Thinking and Personal Dominance ($r = .18$, $p < .01$), and a significant and positive correlation between the higher-level components of Systemic Thinking and Relational Dialogue ($r = .12$, $p < .05$). Although I did not make a specific prediction regarding Interpersonal Influence, it was negatively correlated with Hierarchical Thinking ($r = -.26$, $p < .001$). These components that were parallel in theory were only weakly, albeit significantly, correlated in the results.

Secondly, to further examine the relationships of the theories' components I conducted five separate multiple regression analyses (see Tables 3 and 4), which included the control variables (gender, white/nonwhite, year in school) in the first step.

Table 3

Regressions for Hierarchical Thinking and Systemic Thinking

Variables	Hierarchical Thinking		Systemic Thinking	
	Step 1	Step 2	Step 1	Step 2
Control Variables				
Gender	-.02	-.03	-.03	-.02
Race	.08	.07	-.04	-.08
Year in School	**.15***	**.14***	-.06	-.03
Personal Dominance	-	**.18****	-	.10
Interpersonal Influence	-	**-.24****	-	-.10
Relational Dialogue	-	-.03	-	.10
R^2	.02	**.10****	.01	.03
ΔR^2	-	.09	-	.02

*$p < .05$
**$p < .01$

Table 4

Regressions for Personal Dominance, Interpersonal Influence, and Relational Dialogue

Variables	Personal Dominance		Interpersonal Influence		Relational Dialogue	
	Step 1	Step 2	Step 1	Step 2	Step 1	Step 2
Control Variables						
Gender	-.01	-.01	-.03	-.04	-.06	-.06
Race	-.03	-.04	-.11	-.08	-.09	**-.06***
Year in School	-.11	-.12	-.11	-.09	-.13	-.12
Independent Variables						
Hierarchical Thinking	-	**.13***	-	**-.23****	-	-.12
Systemic Thinking	-	.09	-	-.01	-	.09
R^2	.01	.04	.03	.08	.03	.04
ΔR^2	-	.03	-	.05	-	.02

*$p < .05$
**$p < .01$

Leadership Conceptualization

For the first regression with Hierarchical Thinking as the outcome, in the first step I included the control variables (R^2 = .04, p < .01). In the second step I used the components of the property of the system theory, Personal Dominance (β = .18, p < .01), Interpersonal Influence (β = .-.24, p < .001), and Relational Dialogue (n.s.) as the predictors (ΔR^2 = .08, p < .001). For the second regression with Systemic Thinking as the outcome, in the first step I included the control variables (n.s.). In the second step I used the components of the property of the system theory, Personal Dominance, Interpersonal Influence, and Relational Dialogue (n.s.).

For the third regression with Personal Dominance as the outcome, in the first step I included the control variables (n.s.). In the second step I used the components of the leadership as a process theory, Hierarchical Thinking (β = .13, p = .05) and Systemic Thinking (n.s.) (ΔR^2 = .03, p < .05). For the fourth regression with Interpersonal influence as the outcome, in the first step I included the control variables (n.s.). In the second step I used the components of the leadership as a process theory, Hierarchical Thinking (β = -.22, p = .001) and Systemic Thinking (n.s.) (ΔR^2 = .05, p < .05). For the fifth regression with Relational Dialogue as the outcome, in the first step I included the control variables (n.s.). In the second step I used the components of the leadership as a process theory, Hierarchical Thinking and Systemic Thinking (n.s.). It appears that although they share a weak relationship the components are not parallel.

Leadership Experience and Leadership Conceptualization. To test RQ, that leaders understand leadership differently from non-leaders, and RQ3, that leaders will score higher on higher-level systemic measures, I conducted five independent samples t-tests**.** In the first t-test, with Hierarchical Thinking as a dependent variable, there was no significant difference between leaders and non-leaders. In the second t-test, with Systemic Thinking as the dependent variable, leaders scored significantly higher (M = 4.23, SD = .50) than non-leaders (M = 4.10, SD = .50)

($t(278) = 2.21$, $p < .05$, $d = .26$). In the third t-test, with Personal Dominance as the dependent variable, leaders ($M = 2.86$, $SD = .77$) did not differ from non-leaders ($M = 2.82$, $SD = .60$) (n.s.). In the fourth t-test, with Interpersonal Influence as the dependent variable, leaders (M = 4.18, SD = .80) did not differ from non-leaders (M = 4.09, SD = .78) (n.s.). In the fifth t-test, with Relational Dialogue as the dependent variable, leaders (M = 3.63, SD = .76) scored significantly higher than non-leaders (M = 3.40, SD = .65) ($t(286) = -2.83$, $p < .01$, $d = .33$). In RQ2 I was looking to see if leaders understand leadership differently than non-leaders. While they do not differ from non-leaders in conceptualizing leadership as Personal Dominance, Interpersonal Influence, and with Hierarchical Thinking, they do differ in conceptualizing leadership as Relational Dialogue and with Systemic Thinking. Thus, in response to RQ2 and RQ3, leaders do differ from non-leaders in their understanding of leadership such that they are more likely to view leadership at the *highest*-order levels of understanding, but not at the *higher*-level (or intermediate level) conceptualization of leadership as Interpersonal Influence or at the lower-level conceptualizations of leadership as Personal Dominance and with Hierarchical Thinking.

Leadership Conceptualization Component Structure. RQ4 addressed if the components of leadership understanding are developmental or independent. To examine this question, I did the following to examine the component structure associated with each theory. For Step 1, I noted for each participant whether they scored higher or lower than the mean on each component. For Step 2, responses were placed into all possible combinational categories. For Step 3, I noted whether the responses appeared to be fall equally into all possible categories (as predicted by independent model) or whether they were more likely to fall into the three combinational categories specifically predicted by the developmental model.

Leadership Conceptualization

For leadership as a property of a system model, there were seven possible combinations of categories. They were: (1) high in personal dominance, low in interpersonal influence, low in Relational Dialogue; (2) high in personal dominance, high in interpersonal influence, and low in relational dialogue; (3) high in personal dominance, high in interpersonal influence, and high in relational dialogue; (4) low in personal dominance, high in interpersonal influence, and low in relational dialogue; (5); low in personal dominance, low in interpersonal influence, and high in relational dialogue; (6) low in personal dominance, high in interpersonal influence, and high in relational dialogue; and (7) high in personal dominance, low in interpersonal influence, and high in relational dialogue.

For leadership as a process model, there were four possible combinations of categories: They were (1) high in Hierarchical Thinking, low in Systemic Thinking; (2) high in Hierarchical Thinking, high in Systemic Thinking; (3) low in Hierarchical Thinking, high in Systemic Thinking; and (4) low in Hierarchical Thinking, low in Systemic Thinking.

If the components of understanding leadership are developmental in nature, I expected most responses to be in the categories suggested by Drath (categories 1, 2, and 3 above). However, less than half of the responses were in these three categories (see Table 5). In fact, the single highest category was the high Relational Dialogue and high Interpersonal Influence (20%), which was not a category predicted in the developmental model. When leadership conceptualization is categorized in this way, it appears the components are more independent than developmental.

If the components of understanding leadership are developmental in nature, I expected to see most responses falling into these two categories: high Hierarchical Thinking, low Systemic; and high Hierarchical Thinking and high Systemic (categories 1 and 2 in Table 6). However,

slightly less than half of the responses fell into a developmental model, while all responses fell equally into the four independently organized categories, again suggesting an independent understanding of leadership rather than developmental (see Table 6). Thus, both measures appear to suggest an independent model of leadership understanding.

Table 5

Frequencies for Leadership as a Property of the System

Component Combination Category	Frequency	Percent
High Personal Dominance High Interpersonal Influence High Relational Dialogue*	46	16.0
High Personal Dominance High Interpersonal Influence Low Relational Dialogue*	28	9.7
High Personal Dominance Low Interpersonal Influence Low Relational Dialogue*	49	17.0
Low Personal Dominance Low Interpersonal Influence High Relational Dialogue	18	6.3
Low in Personal Dominance High in Interpersonal Influence Low in Relational Dialogue	26	9.0
Low in Personal Dominance High in Interpersonal Influence High in Relational Dialogue	55	19.1
High in Personal Dominance Low in Interpersonal Influence High in Relational Dialogue	37	12.8
Low Personal Dominance Low Interpersonal Influence Low Relational Dialogue	28	10.1
Total	287	100.0

*Categories predicted by the developmental component structure theory

Table 6

Frequencies for Leadership as a Process Categories

Conceptualization Category	Frequency	Percent
Low Systemic-Low Hierarchical	61	21.2
High Hierarchical-Low Systemic	62	21.5
High Systemic-Low Hierarchical	79	27.4
High Systemic-High Hierarchical	74	25.7
Missing	11	4.2
Total	287	100

Discussion

The purpose of this study was threefold: (1) to elaborate on existing theory by suggesting separating leadership conceptualization from leadership as its own construct, in order to examine the component relationships of four leadership conceptualizations proposed in the literature; (2) to examine if leadership experience influences how college students conceptualize leadership; and (3) to explore the component structure of leadership conceptualization. To address these questions I examined the data from a sample of 287 college students who I surveyed regarding their conceptualization of leadership. To address the first aim, I examined the correlations between theoretically similar component variables of conceptualizations and found significant but weak correlations. These results were supported by five multiple regression analyses that held demographic variables constant and obtained similarly significantly weak relationships. This suggested that contrary to what their theoretically similar descriptions might suggest, the conceptualization components of different theories are not similar. To address the question of

leadership experience as an antecedent to leadership conceptualization in college students, I used independent samples t-tests to see if students with leadership experience differ on average from students without leadership experience in how they conceptualize leadership. In particular, I was interested in differences occurring at the highest-order level components that were predicted by theory. Results did indeed reveal that leaders conceptualized leadership differently at the highest levels, scoring higher than non-leaders in both Relational Dialogue and Systemic Thinking, although there was no significant difference at the mid-level-order of Interpersonal Influence or the lower-order levels of Personal Dominance and Hierarchical Thinking. It appears that leadership experience is an antecedent to certain types of thinking (i.e., higher-level) about leadership. Finally, to address the leadership conceptualization component structure, I organized responses into the categories proposed by the developmental model and then into those proposed by the independent models. In this way I was able to see if the responses formed a pattern reflecting the developmental model, the independent model, or both. The responses fell equally into the quadrants proposed by the independent component structure while fewer than half fell into the three categories proposed by the developmental component structure, suggesting that leadership conceptualization at the college-student age is composed of orthogonal dimensions.

Limitations. The use of unvalidated measures for two of the three dependent variables likely attenuated the strength and validity of results. The vignettes, in addition to overwhelming participants (based on feedback received) may have induced fatigue, leading to careless responding on the remaining measures, as vignettes were the first measures in the survey. This information was ascertained by the high number of 2% completion rates, which corresponded with abandonment of the survey after reading the first page of vignette questions. Careless responses may not have been detected by the attention check. Contamination in vignette

responses likely occurred. Careless responding was likely incurred from college students being presented with vignette content written for mid- to high-level managers working in Human Resources; the scenarios' detail and length likely put off or confused respondents. Future iterations should be cognizant of writing to the audience's level.

A second limitation was the unvalidated Beliefs About Leadership scale. This use was the second test of the iterative scale development process, and the results should be used with caution, in particular those of the three-item Relational Dialogue subscale. Although the Relational Dialogue subscale was significantly related to every other subscale, its low alpha of .60 limits the validity of results. The Beliefs about Leadership scale would benefit from undergoing more iterations of scale development and adding samples from other populations besides college age. Future iterations might also use item response theory to identify items eliciting the most variance, which would extract and refine the wording and ideas that elicit individuals' conceptualizations of leadership. IRT in future research might also enrich our understanding of how weakly correlated but theoretically similar measures such as Hierarchical Thinking and Personal Dominance differ; detailed analysis juxtaposing Hierarchical Thinking and Personal Dominance items of similar difficulty might highlight similarities and differences in each's content and approach, offering new angles for theory elaboration. Finally, a focus on measures of convergent validity and criterion validity would strengthen applied interpretations from the results of the current study, and aid in understanding when it may be more advantageous and appropriate to use one measure over another.

A third limitation is the possibility is that the measures assessed endorsement of leadership rather than conceptualization (i.e., recognition) of it as intended. It is possible that leaders did not find endorsement of Hierarchical leadership to be socially desirable, leading them

not to endorse it as leadership even though they may have recognized it as a type of leadership. Future measures might use precautions against this, such as asking respondents to take the survey twice: once as themselves, and once as they believe "most people" or as someone earlier in their adult development, such as an early adolescent, might respond.

Future directions. Implications for both theory and application are clear in the discrepant results arising from the developmental and independent measures: more research is needed to understand leadership conceptualization. In the meantime, caution should be exercised when choosing which measure is most appropriate for a study or project. There is a great deal of theory and some evidence supporting a developmental perspective on the leadership cognition construct. This was not supported by the results of this study, which instead suggested an independent component structure in conceptualization. Research might explore questions around what an independent conceptualization component structure could mean for the adult development literature, as well as for adult cognition literature, and for understanding the nature of leadership. For example, evidence for the independent component structure was found thus far only in the college student population. Similar studies may shed light on both young adult cognition and leadership conceptualization through comparing results between age groups and parsing and juxtaposing elements of shared variance. Research would also benefit from conducting similar studies in other populations to avoid overgeneralization of these results.

The results of this study are in accordance with previous literature that has found that experience affects leadership skills. There was little doubt that experience leads to development in general and to leadership development specifically, and now there is further evidence for leadership experience leading to changed cognition about leadership. Yet in order to use understanding of leadership conceptualization to inform our understanding of leadership itself

we must go deeper, and explicate of leadership conceptualization its antecedents, place in the nomological network, and relationship to leadership. Leadership research might explore how the components of Hierarchical Thinking exist independently with Systemic Thinking rather than being subsumed by it as the developmental model would suggest. Similar to my earlier suggestion for the Beliefs About Leadership scale, this might be done empirically with item response theory on a longer and more detailed version of the Hierarchical Thinking subscale, and theoretically with theory elaboration techniques. These close analysis might be combined with analyses on the Systemic Thinking measure. Specifically, it is possible that the adaptive and flexible components of the Systemic Thinking view are responsible for sustaining endorsement of both views simultaneously. If true, it may be useful to target the flexible facets of the construct in both analysis as well as, more practically, in experiential development programs.

Research questions to pursue this query can be pulled from the other finding from this study, that leadership experience leads to higher endorsement of Systemic Thinking about leadership and endorsement of Relational Dialogue as leadership. In one measure, leadership was assessed as a process; in the other, as a property of the system. To what degree might these semantic differences create contamination in either scale? That is, Relational Dialogue is a leadership process resembling, in almost every way but in different words, the systemic process approach to conceptualizing leadership. Might Drath's description of leadership using the descriptive noun "property" elicit a false sense of immutability that is absent from Allen et al.'s description using the gerund "process"? A noun is static while a gerund moves gracefully between usage as a noun or a verb. This is analogous to the leadership conceptualizations of leadership as a static, positional, inherent characteristic versus a continuing process that also serves as an outcome (for lack of an existing term, what I call a "result-process"). This lexical

analogy to conceptualization demonstrates the interdigitation of words and constructs and suggests that subtle wording differences could attenuate common variance in measurement of a construct as delicate as conceptualization. Future research developing scales tapping leadership conceptualization might incorporate linguistic and semantic considerations in their design to obtain increased validity and reliability.

Other questions arising from this study's results can be more easily addressed. For example, further analyses can be done to identify the type of leadership positions most likely to predict endorsement of Systemic Thinking and Relational Dialogue, which can be tested in organizations with parallel properties. Leadership research can also explore Wielkiewicz's suggestion that the quadrants be further split into smaller degrees to create more precise categorizations of this thinking, perhaps giving insight into how, if at all, it may link with other theories of leadership. The constructive-development model of leadership understanding links ways of understanding and conducting leadership cleanly to the theory of constructive-development. It may not be necessary to abandon this work completely in response to support for the independent conceptualization of leadership. Research might examine if the Wielkiewicz model and the constructive-development leadership conceptualization can be integrated, either using a theory such as Hofer's (2004) that integrates both perspectives, or perhaps by replicating these measures in older populations at different levels of development to see if results hold. Where the dimensions are orthogonal at this stage of development, perhaps they are intertwined at the later stages.

Practical applications of these findings are clear: novel experiences--specifically, leadership experiences--during the college years lead to the development of a systemic understanding of leadership. Given the importance of recognizing our interconnectedness as a

global economy, this type of understanding is crucial in maintaining an adaptive climate that communicates with itself to grow and change. The effects of experiential leadership learning in this case could at their most drastic impact be invaluable to global peace and posterity. At its least impactful, experiential leadership learning offers a nuanced, sophisticated lens through which one may distinguish dynamic interactions as well as create inclusive space for leadership participation.

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Appendix A

Leadership Demographics Survey Section

Start of Block: Leadership Academics

List the for-credit leadership-focused courses you have taken in college.

- ☐ I have not taken leadership-focused courses in college for credit.
- ☐ Freshman _____
- ☐ Sophomore _____
- ☐ Junior _____
- ☐ Senior _____

Are you completing the Minor in Leadership Development through Civic Engagement?

- ○ Yes
- ○ No

Are you completing the Leadership Development Certificate Program?

- ○ Yes
- ○ No

How many Leadership Development conferences or trainings have you attended at your university or that were associated with your university?

_____

How many Leadership Development conferences or trainings have you attended during college NOT associated with your university?

_____

How many Service Learning courses have you taken during college?

_____

How many internships/co-ops have you completed during college?

_____

How many semesters during college have you conducted research with a faculty member?

_____

If you held any of the campus positions below, please check the box(es) of the year you held them.	Freshman	Sophomore	Junior	Senior
Academic Success & Retention Programs Leader	☐	☐	☐	☐
Athletics Student Leader	☐	☐	☐	☐
Athletics Student Office Assistant	☐	☐	☐	☐
Athletics TALON Member	☐	☐	☐	☐
Auxillary Services: ID Card Office	☐	☐	☐	☐
Bonner Leader	☐	☐	☐	☐
C.A.R.S. Student Leader	☐	☐	☐	☐
CADA Student Tutor	☐	☐	☐	☐
Campus Recreation - Area Supervisor	☐	☐	☐	☐
Campus Recreation - Building Manager	☐	☐	☐	☐
Campus Recreation - Equipment Checkout Attendant	☐	☐	☐	☐
Campus Recreation - Facilities Attendant	☐	☐	☐	☐
Campus Recreation - Group Exercise Instructor	☐	☐	☐	☐

Campus Recreation - Intramural Sports Official	☐	☐	☐	☐
Campus Recreation - Lifegaurd	☐	☐	☐	☐
Campus Recreation - Marketing Assistant	☐	☐	☐	☐
Campus Recreation - Personal Trainer	☐	☐	☐	☐
Campus Recreation - Student Office Assistant	☐	☐	☐	☐
CAPS Ambassador	☐	☐	☐	☐
CAST - Peer Advisor	☐	☐	☐	☐
CAST - Peer Leader	☐	☐	☐	☐
Center for Leadership Development - Leadership Certificate Program Coordinator	☐	☐	☐	☐
Center for Leadership Development - Student Intern	☐	☐	☐	☐
Center for Leadership Development - Student Leader Office Assistant	☐	☐	☐	☐
Center for Leadership Development - Student Volunteer	☐	☐	☐	☐
Center for Leadership Development - Workshop Presenter	☐	☐	☐	☐
Center for Student Involvement - Program Manager	☐	☐	☐	☐

Center for Student Involvement - Weekend Program Assistant	☐	☐	☐	☐
Conference Center Student Leader	☐	☐	☐	☐
Department of Student Communications - Student Communications Assistant	☐	☐	☐	☐
Department of Student Communications - Team Rocky Member	☐	☐	☐	☐
Dining Services - Marketing Intern	☐	☐	☐	☐
Dining Services - Student Dining Associate	☐	☐	☐	☐
Educational Opportunity Fund - Office Assistant	☐	☐	☐	☐
Opportunity Fund - Student Leader	☐	☐	☐	☐
ELLC Mentor	☐	☐	☐	☐
Emergency Medical Services - EMT	☐	☐	☐	☐
Emergency Medical Sevices - CPR	☐	☐	☐	☐
Equity and Diversity Office Student Leader	☐	☐	☐	☐
Experience Montclair - Ambassador	☐	☐	☐	☐
Experience Montclair - Orientation Leader	☐	☐	☐	☐

Financial Aid Student Leader	☐	☐	☐	☐
Greek Life - Program Manager	☐	☐	☐	☐
LDCC Office Student Leader	☐	☐	☐	☐
LGBTQ Center Facilitator	☐	☐	☐	☐
LGBTQ Center Peer Mentor	☐	☐	☐	☐
LGBTQ Center Pride Board	☐	☐	☐	☐
LGBTQ Center Student Assistant	☐	☐	☐	☐
LGBTQ Lavender Leader	☐	☐	☐	☐
Office of Alumni Engagement and Annual Giving - Student Development Officer	☐	☐	☐	☐
Office of Civic and Voter Engagement - Vote Everywhere Ambassador	☐	☐	☐	☐
Office of Equity & Diversity (Faith & Spirituality/LGBTQ/Multicultural/Women's Center) - Peer Educator	☐	☐	☐	☐
Office of Equity & Diversity (Faith & Spirituality/LGBTQ/Multicultural/Women's Center) - Peer Facilitator	☐	☐	☐	☐
Office of Health Promotion - Peer Advocate	☐	☐	☐	☐
Office of International Engagement - Study Abroad Peer Advisors	☐	☐	☐	☐

Office of Residence Life - Resident Assistant (RA)	☐	☐	☐	☐
Office of Residence Life - Resident Assistant Coordinator	☐	☐	☐	☐
Office of Residence Life - Service Assistant (SA)	☐	☐	☐	☐
Office of Undergraduate Admissions - Customer Service Representatitve	☐	☐	☐	☐
Office of Undergraduate Admissions - Red Hawk for a Day & Overnight Experience Host	☐	☐	☐	☐
Office of Undergraduate Admissions - Undergraduate Admissions Ambassador	☐	☐	☐	☐
Peer Leadership Presenter	☐	☐	☐	☐
Rec Board Leader	☐	☐	☐	☐
Rec Center - Guest Relations Attendant	☐	☐	☐	☐
Rec Center - Scorekeeper/Official	☐	☐	☐	☐
School of Business Peer Mentor	☐	☐	☐	☐
Student Center - Program Manager	☐	☐	☐	☐
Student Center Building Manager	☐	☐	☐	☐
Student Center Info Desk Leader	☐	☐	☐	☐

Student Government Assosication (SGA) - Justice	☐	☐	☐	☐
Student Government Assosication (SGA) - Legislator	☐	☐	☐	☐
Student Leadership Team Member	☐	☐	☐	☐
Tutor for the Academic Resource Center	☐	☐	☐	☐
Web Developer	☐	☐	☐	☐
Intern on Campus (General)	☐	☐	☐	☐
Office Student Assistant (General Position)	☐	☐	☐	☐
Other (please describe)	☐	☐	☐	☐

End of Block: Leadership Academics

Start of Block: Leadership Activities

Are you or have you been a SGA Executive Board Member? If yes, list position title.

- ☐ I have not been an SGA Executive Board Member.
- ☐ Yes, Freshman year _____
- ☐ Yes, Sophomore year _____
- ☐ Yes, Junior year _____
- ☐ Yes, Senior year _____

Are you or have you been an Executive Board Member for an on-campus club, organization, society, or association other than SGA? If yes, list club/organization name and position title.

- ☐ I have not been an Executive Board Member for an on-campus organization.
- ☐ Yes, Freshman year _____
- ☐ Yes, Sophomore year _____
- ☐ Yes, Junior year _____
- ☐ Yes, Senior year _____

How many semesters during college did you hold an Eboard position within the SGA or a student club, organization, society, or association?

- ○ I have not held an Eboard position within the SGA or a student club, organization, society, or association
- ○ 1-2 semesters
- ○ 3-4 semesters
- ○ 5-6 semesters
- ○ 7-8+ semesters

List any campus organizations, clubs, associations, or teams of which you have been an official leader during your college career (excluding any previously listed positions).

- ☐ I have not been an official leader on campus.
- ☐ Freshman year _____
- ☐ Sophomore year _____
- ☐ Junior year _____
- ☐ Senior year _____

List any campus initiatives/activities in which you participated as an official leader (i.e. theater productions, band, dance troupe, voter registration initiatives, etc.) that you have not already listed.

- ☐ I have not been an official leader in any campus initiatives/activities.
- ☐ Freshman year _____
- ☐ Sophomore year _____
- ☐ Junior year _____
- ☐ Senior year _____

Check all the years you held (or currently hold) a management position in any university capacity (i.e. computer lab leader, office manager), and list the area you managed.

- ☐ I have not held a management position in any university capacity.
- ☐ Freshman year _____
- ☐ Sophomore year _____
- ☐ Junior year _____
- ☐ Senior year _____

Please check the boxes for years you have served as a leader for any of the below campus categories.

	Freshman	Sophomore	Junior	Senior
Athletic Team 1 (describe)	☐	☐	☐	☐
Athletic Team 2 (describe)	☐	☐	☐	☐
Greek Association 1 (describe)	☐	☐	☐	☐
Greek Association 2 (describe)	☐	☐	☐	☐
GCOA 1 (describe)	☐	☐	☐	☐
GCOA 2 (describe)	☐	☐	☐	☐
GCOA 3 (describe)	☐	☐	☐	☐
GCOA 4 (describe)	☐	☐	☐	☐
GCOA 5 (describe)	☐	☐	☐	☐

List any off-campus official leadership roles you have regularly held while in college (include work, volunteer, etc).

- ○ I have not held any off-campus official leadership roles while in college.
- ○ List here: _____

End of Block: Leadership Activities

Start of Block: Campus Membership

Check the boxes for years you have been regularly involved as a member (not leader) in any of the below categories on campus, and name the group/team/etc. If you participated in multiple, use one line for each.	Freshman	Sophomore	Junior	Senior
Athletic Team 1 (describe)	☐	☐	☐	☐
Athletic Team 2 (describe)	☐	☐	☐	☐
Greek Association 1 (describe)	☐	☐	☐	☐
Greek Association 2 (describe)	☐	☐	☐	☐
GCOA 1 (describe)	☐	☐	☐	☐
GCOA 2 (describe)	☐	☐	☐	☐
GCOA 3 (describe)	☐	☐	☐	☐
GCOA 4 (describe)	☐	☐	☐	☐
GCOA 5 (describe)	☐	☐	☐	☐
GCOA 6 (describe)	☐	☐	☐	☐
GCOA 7 (describe)	☐	☐	☐	☐
GCOA 8 (describe)	☐	☐	☐	☐

GCOA 9 (describe)	☐	☐	☐	☐
GCOA 10 (describe)	☐	☐	☐	☐
Initiative/Activity 1	☐	☐	☐	☐
Initiative/Activity 2	☐	☐	☐	☐
Initiative/Activity 3	☐	☐	☐	☐
Initiative/Activity 4	☐	☐	☐	☐
Initiative/Activity 5	☐	☐	☐	☐

While involved in on-campus groups, activities, initiatives, or organizations, how many semesters of your college career have you assumed an unofficial leadership role?

- ○ I have never assumed an unofficial leadership role
- ○ 1-2 semesters
- ○ 3-4 semesters
- ○ 5-6 semesters
- ○ 7-8+ semesters

How long have you managed other students ON-campus during the course of your college career in either an official or unofficial capacity?

- ○ I have never managed others
- ○ 1-2 semesters
- ○ 3-4 semesters
- ○ 5-6 semesters
- ○ 7-8+ semesters

In group situations during classroom activities during your college career, what percentage of the time would you say that you assumed an unofficial leadership role?

- ○ 0%
- ○ 1-25%
- ○ 26-50%
- ○ 51-75%
- ○ 76-100%

List any OFF-campus organizations, clubs, associations, teams, or initiatives/activities you have been actively involved in as a member during your college career (i.e. church groups, town sports teams, volunteer, etc.)

_____

Appendix B

Original Vignette (italics added where content was modified):

A group of human resource managers sat in a conference room discussing a strategy for resource allocation. Two managers, *Nathan and Jana, kept resurfacing the idea that investing in staff development would represent the value placed on employees*. They emphasized engagement and commitment increasing as a result. However, the other managers, *Kara and Tim*, were unconvinced and *held the belief* that bonuses would more effectively achieve this goal. Their persistent hesitation began to halt progress towards a resolution. Listening intently, *Jana* shifted gears and *began to describe observing motivation patterns amongst employees*. From her perspective, team members were *intrinsically motivated* and monetary rewards would prove ineffective. *Now* this idea resonated quickly with the *group, and many* managers who had remained silent were now chiming in, committed to this new direction. Even *Kara's* buy-in increased and she began thinking through recommendations, "management responsibilities should become part of all job descriptions and *made a foundational component for* annual performance reviews." *While Jana agreed, she described the importance of first defining the leadership competencies required at different levels.*

An hour later, the group of managers felt confident in *Jana's* recommendation *and saw the vision of shifting the culture from staff expecting every issue to be resolved at the executive level to emerging managers becoming more and more confident in their roles.*

Modified Vignette:

A group of human resource managers sat in a conference room discussing a strategy for resource allocation. Two managers, Ahmad and Nikki, repeatedly suggested investing in staff development, which would represent the employees' value to the company. They emphasized engagement and commitment increasing as a result. But other managers, Margaret and Reggie, were unconvinced and staunchly believed that bonuses would more effectively achieve this goal. Their persistent hesitation began to halt progress towards a resolution. After listening intently, Nikki shifted gears and shared observations about what motivated their employees. From her perspective, team members were motivated by the work itself and monetary rewards would prove ineffective. This idea resonated quickly with the group as they realized the accuracy of Nikki's observation. Many managers who had remained silent were now chiming in, committed to this new direction. Even Margaret's buy-in increased as she began thinking through recommendations: "Management responsibilities should become part of all job descriptions and annual performance reviews."

An hour later, the group of managers felt confident in Nikki's recommendation. They envisioned a culture shift that would enable staff to become more confident in their roles as emerging managers, rather than expecting every issue to be resolved at the executive level.