

## **The relationship between student leaders' constructive development, their leadership identity, and their understanding of leadership**

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## **Abstract**

The purpose of our research was to use Day, Harrison, and Halpin's, (2009) theory of leadership development as a premise to investigate how students' constructive development is related to their leader identity development and understanding of leadership. Baxter Magolda's Model of Epistemological Reflection (MER, 1988, 2001) was used to understand constructive development, Komives, Owen, Longorbeam, Mainella, & Osteen's Leadership Identity Development (2005) to determine leader identity, and Drath's principles of leadership (2001) to determine understanding of leadership. Fifty junior and senior college student leaders filled out the MER and participated in an interview about their leadership experiences. Interviews were coded according to the above constructs of leader identity development and leadership understanding. Although there was a relationship between leader identity development and understanding of leadership, no relationship was found between these two constructs and

constructive development. Findings suggest that most of the student leaders still depend on others to help them construct reality. Furthermore, many believe that because they are in a leadership role, they are leaders while others are not.

## **Introduction**

Researchers of leader development are realizing that development into adulthood occurs concurrently with development as a leader (see Bartone, Snook, Forsythe, Lewis, & Bullis, 2007; Day, Harrison, and Halpin, 2009, McCauley, Drath, Palus, O'Connor, & Baker, 2006), and as such, it is important to understand both in order to successfully develop leaders. However, little research has sought to investigate how these simultaneously occurring developmental processes influence one another, particularly in college students when large scale developmental changes could influence the success or failure of student leader development. The purpose of our research, based on the premise of Day, et al.'s (2009) theory of leadership development, is to investigate how a student's adult development (focusing on the aspect of constructive development) is related to their leader development with regard to identity as a leader and their understanding of leadership. We do this by assessing student leaders through the use of surveys and interviews to investigate whether student constructive development as understood by Baxter Magolda's Model of Epistemological Reflection (1988, 2001) is related to Leadership Identity Development (LID) as modeled by Komives, Owen, Longenecker, Mainella, & Osteen (2005), and to understanding of leadership as modeled by Drath's principles of leadership (2001).

In order to more successfully develop our leaders of tomorrow, Day, et al., (2009) propose a holistic model that combines adult development, leader development, and leader learning in a pyramid fashion. At the top of the pyramid are the observable aspects of leader development: the acquisition of skills and the building of competencies. Most leadership development today is focused on this observable level. However, according to Day, et al. (2009), these aspects rest on a broader base of a person's identity development as a leader and their understanding of leadership. Identity development and understanding of leadership, in turn, rest on the deepest and broadest, least observable level, in essence a person's constructive development, or their understanding and construction of the world. Day et al. (2009) suggest that to see lasting change in a leader, we must target development at the bottom of the pyramid because as our understanding of the world changes, so do our identities, and skills and competencies. Attempting to change skills and competencies while ignoring a person's perceptions of the world, leadership and understanding of themselves as leaders will not result in the development needed (see Beck & Cowan, 2006). In this study, we concentrate on determining how the bottom two levels of the pyramid are related, that is how college student constructive development relates to their understanding of leadership and themselves as leaders.

**Constructive development.** According to Day, et al.'s model (2009), the lowest level of the pyramid is concerned with an individual's constructive development, which is how people actively construct or make meaning of their experience: they interpret what happens to them, evaluate it using their current perspective, and draw conclusions about what those experiences mean to them. The meanings they make depend on their current assumptions about themselves and the world. At the core of these beliefs are an individual's belief about the nature of

knowledge—its certainty, complexity, and source (Baxter Magolda, 2004). These beliefs about ‘knowing’ filter all other knowledge (Posner, Strike, Hewson, & Gerzog, 1982) such as self, learning, and domain specific beliefs (Baxter Magolda, 2004) including beliefs about leadership (McCauley, et al., 2006). These beliefs about ‘knowing’ develop over time not just through an accumulation of more knowledge, but through a process of moving through distinct stages of growth that transform a person’s understanding of knowledge itself (McCauley, et al., 2006). People develop progressively more complex and integrated ways of knowing when they find their current constructions of meaning conflicting with the experiences they are encountering and the context they are experiencing (Baxter Magolda, 2004). According to Day, et al. and others (McCauley, et al., 2006), as ways of ‘knowing’ change, so do other dimensions of development such as ways of understanding leadership (Drath, 2001) and leadership identity development (Komives, et al., 2005).

In order to investigate the bottom level of Day, et al.’s pyramid, we use Baxter Magolda’s Model of Epistemological Reflection (1988, 2001), which initially concentrated on cognitive development. In Baxter Magolda’s model (1988, 2001), many students begin college in the Absolute Knowing stage and assume that knowledge is certain and known by authorities. At this stage, it is the student’s job to acquire that knowledge. In Transitional Knowing, students come to assume that while knowledge is absolute in some areas, it is uncertain in other areas. For example, in math or science, they still assume there is a “right” answer, while in philosophy or humanities, there is no right or wrong answer. Students in this stage still try to acquire knowledge in some areas, but they begin to shift to more actively interpreting knowledge in other areas. In the Independent Knowing stage, students view knowledge as uncertain. They come to understand that information can be manipulated to construct different views of “truth”. Students’ focus is on thinking for themselves and sharing viewpoints and opinions with peers. At this level, the role of instructors is to promote independent thinking and not judge opinions. In the final stage, Contextual Knowing, students arrive at the understanding that knowledge exists in a context and is judged on evidence relevant to that context; opinions are equally legitimate and students learn to consider choices and offer, ask for, and judge ideas by offering and listening for defensible solutions. In her longitudinal study, Baxter Magolda (1992) found that the absolute way of knowing was most prevalent in the first year of college (68 per cent of students) declining over the next three years to 46 per cent, 11 per cent, and 2 per cent respectively. Transitional knowing increased in the first three years of college (32 per cent, 53 per cent and 83 per cent) and declined slightly in the final year (80 per cent). Independent knowing was rarely evident in the first three years and represented 16 per cent of students in the final year. Contextual knowing was rarely evident, comprising just two percent in the final year.

Although Baxter Magolda’s theory focuses on college students, (and more recently post-college young adults) it also relates to other theories of adult constructive development such as Kegan’s orders of consciousness (Kegan 1982, 1994). Baxter Magolda’s stages appear to be a finer tuned description of young adults moving from Kegan’s Interpersonal or Traditional order of development to his next order called Institutional or Modern order of development. In both Kegan’s Interpersonal and Traditional order of development and Baxter Magolda’s absolute knowing, individuals depend on others to construct reality. In Kegan’s Institutional or Modern order of development and Baxter Magolda’s Independent knowing stage, individuals understand themselves as independent thinkers who have discovered their own voice. Day et al. (2009)

postulate that constructive development is a necessary foundation on which leader identity and understanding of leadership develop, but this has not been explicitly tested in college student leader development.

**Leader Identity Development.** The mid level of Day et al.'s model (2009) concerns an individual's leader identity. Identity is the culmination of an individual's values, experiences, and self-perceptions (Baltes & Carstensen, 1991), and is both a multidimensional and a multi-level construct. First, individuals hold multiple identities and one of those identities may be an individual's leader identity. Recent work has suggested that the development of a leader identity is important in the ongoing and continuous development of a leader. The more salient and crystallized a leader identity, the more likely that individual is to seek out experiences to enact and develop that aspect of the self (Day, et al., 2009). Second, in addition to holding (or not holding) identity types, identity can be described with regards to levels. Lord and Hall (2005) suggest that as leaders develop their identities, they expand in focus from focusing on themselves as a leader (or follower) and differentiating themselves from others to include a relational level in which they work and bond with others, and then to include a collective level in which they are concerned with the group as a whole working together. Thus, leader identity is thought to change in terms of its underlying level of inclusiveness, ranging from least inclusive (individual) to most inclusive (collective) as a function of the developmental process.

Drawing from developmental identity perspectives, Komives, et al. (2005) also developed a stage-based model of Leadership Identity Development (LID). This model is based on six stages, and similar to Lord and Hall (2005), suggests that leadership identity develops from individual to relational to collective levels. Students are presumed to enter college in the third stage, Leader Identified. Individuals at this stage believe that leadership is a position, and therefore, the person in that position is the leader. If one is not the leader, then one is a follower or group member and looks to the leader for direction. They believe the responsibility of the leader is to accomplish the given task. In the Leadership Differentiated stage, students still see leadership as what an individual does as a positional leader, but also see leadership being exhibited by non-positional group members. If they are in a positional role at this stage, leaders seek to engage in shared, participative leadership; they see their role as a facilitator and community builder within the group. As a group member they know they could be "a leader without a title." They also become more aware that leadership is a process. In the Generativity stage, students moved beyond the relational view of leadership to a more collective view. They show an ability to express a passion for their commitments and care for the welfare of others including the sustainability of their own groups in which they were working. Here, students recognize the interdependence of people working together. In addition to knowing that all people can do leadership in a group, their view of leadership is that it is a process and a responsibility of group members to the group. The final stage is Integration and Synthesis of their leadership identity into a more encompassing identity. Here they do not need to hold positional leader roles to know they are engaging in leadership. There is no published research investigating LID levels in college students. However, evidence suggests that students tend to have a more "leader-centric" (relating to leader identified) rather than collaborative view (relating to higher stages) of leadership (Fischer, Overland, & Adams, 2010; Haber, 2012).

Komives, et al. (2005) relate their LID to Kegan's orders of development. They suggest that LID stage 3, Leader Identified corresponds with Kegan's Interpersonal or Traditional order of development, and that LID stage 4, Leadership Differentiated corresponds with Kegan's Institutional or Modern order of development. They do not hypothesize any further connections. Based on Day, et al.'s (2009) model and Komives, et al.'s (2005) arguments, in this study, we expect a linear association between stage of constructive development and stage of leader identity development.

**Leadership Principles.** The center of the pyramid in Day et al.'s model (2009) also concerns an individual's understanding of what leadership is. In line with constructive development theorists, Drath (2001) argues that leadership is a construct, not an object, and one that becomes more complex as an individual's understanding of the world becomes more complex. Drath (2001) proposes three general ways of understanding leadership that he calls "principles of leadership" based on Kegan's orders of development (see McCauley, et al., 2006). Similar to Komives, et al. (2005), and Lord and Hall (2006), these general ways of understanding leadership 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. Leadership is what the leader does and is a personal characteristic of the leader. An individual in the formal role of leader who understands leadership from this perspective sees themselves as the "authority" and might try to "act on" followers (Day & Harrison, 2007). If the leader's actions don't make sense, or if someone doubts or challenges the leader, then leadership is ineffective or is not happening. In Drath's second principle of leadership, "Interpersonal Influence", leadership is seen as an influence process and a leader emerges from a process of negotiation with the rest of the group where the individual(s) of greater influence emerge as the leader(s). The personal dominance principle, which sees leadership as being something inherent in the leader differs from the emergence of a leader from a process of negotiation in that here, leadership is occupied by the most influential person and can change over time. An individual in the formal role of leader who understands leadership from this perspective would see their job as listening to and being influenced by followers but having greater influence on their followers through reason and negotiation and by virtue of their formal title as leader. In Drath's third principle of leadership, "Relational Dialogue", leadership is understood to happen when people participate in collaborative forms of thought and action to complete tasks and accomplish change. If there is a person who has the label of "leader", the role this person takes is only one aspect of participation in the larger process of leadership. An individual in the formal role of leader who understands leadership from this perspective might see their job as to "act with" the other members of the group in collective ways (Day & Harrison, 2007) and to use his/her talents and skill sets as needed to reach goals and effect change. For example, their contributions to leadership might involve facilitating the group in creating a direction together, and in submitting the actual report of progress or goals reached. To date, there is no research determining the principle of leadership held by college students based on this model. However, one qualitative study found that students tend to see leadership is a quality that an individual possesses (or not) and that those who perceive they possess this quality are the ones that assume leadership positions (Shertzer & Schuh, 2004), which suggests an adherence to the personal dominance principle.

While Day and colleagues (2009) and Drath (2001) and colleagues (2006) have asserted that levels of constructive development, leader identity(ies) and perceptions or ‘principles’ of leadership are related, research has not yet studied these three factors together. It was therefore the purpose of the following study to identify student leaders in the college/university context in order to assess their current levels of constructive development, LID, and principle of leadership to assess relationships between them. Based on Day, et al.’s model (2009) and Drath’s (2001) arguments, in this study, we predict an association between stages of cognitive development and principles of leadership, such that more advanced levels of constructive development are related to relational or collective perceptions of leadership. As both have theoretically been related to Kegan’s orders of development we further suggest that leader identity and principles of leadership are connected, whereby more advanced (relational and collective) LID would relate to relational (interpersonal influence) and collective (relational dialogue) understandings of leadership. However, we argue that students will not develop progressively more complex ways of thinking about leadership until they find their current constructions of leadership conflicting with the experiences they are encountering (see Ibarra, 1999). Thus, we predict that Leadership Principle perceptions to lag behind (be less than) Leader Identity Development.

## Methods

**Participants.** The researchers approached senior level Student Affairs Administrators at four different colleges and universities surrounding a large metropolitan area in the mid-Atlantic region who were in charge of leader development at their institution. These institutions were approached because they differed on a variety of characteristics such as size (2 large, 2 small), Carnegie classification (2 teaching, 2 research), and public/private status (2 public, 2 private). The administrators were interested in the study and agreed to participate. They identified the most active student leaders in their junior or seniors at their college or university. The administrators each sent out emails to 30 to 35 traditionally aged juniors or seniors, who they identified as the top student leaders on their campus, to ask if they would be interested in participating in the research study. Approximately 130 students were contacted. If the student indicated interest, the administrators sent the student’s email address to the researchers. Seventy-two (55%) of the 130 students originally contacted responded they were interested. Researchers were able to schedule interviews with 50 students (38% response rate). Of these students, 62% were female; 60% identified themselves as white, 16% Asian, 10% Black, and 8% as Latino/Hispanic.

**Procedure.** The researchers emailed the participants and asked them to sign up for an interview time and asked them to fill out an online instrument that included the Measure of Epistemological Reflection (MER) (Baxter Magolda, 2001, Baxter Magolda & Porterfield 1985). Participants were also given instructions for preparing for the study:

To help you get ready for the interview we want to give you time to think about the following questions:

When you think back on your collegiate leadership experiences, certain events or stories probably come to mind -- things that lead you to change or affirm the way you lead. Please write down some notes for yourself and identify at least three

"key events" from your years in college which helped shape you into the leader you are today. What happened and what did you learn from those experiences (the good and the bad)?

A reminder email was sent to the students prior to their interview. This email confirmed the interview time and place. If the students had not filled out the on-line instrument, they were prompted to do so. This email also re-prompted the students to think about the main interview questions.

### **Online instrument and coding**

**MER.** For the purposes of this study, we measured epistemological development using the MER (Baxter Magolda & Porterfield, 1988). The MER is a short essay questionnaire designed to assess epistemological beliefs (i.e., how people view and construct knowledge) in six domains: the roles of the learner, instructor, peers, evaluation in learning, the nature of knowledge, and decision-making. Each domain section begins with a broad question. For example, the domain regarding peers begins with, "Do you prefer classes in which students do a lot of talking, or where the students don't talk much?" Then the participants are asked to state why they selected the answer they did and what were the advantages and disadvantages of their choice.

**Coding of the MER** was done in two steps. First, guided by the coding manual and coding materials provided by Baxter Magolda, two members of the research team separately coded each of the domains into one of seven levels of development (1. absolute knowing, 2. absolute/transitional knowing, 3. transitional knowing, 4. transitional/independent knowing, 5. independent knowing, 6. independent/contextual knowing, 7. contextual knowing) and compared their scores. Kappa scores with quadratic weighting were calculated to determine reliability (Kappas ranged from .68 to .87). Discrepancies were discussed and resolved with consensus coding. Second, the same two coders separately considered the entire MER survey and coded each entire questionnaire into the same seven levels of development as above. They compared their scores. Again, the Kappa score with quadratic weighting was calculated to determine reliability (Kappa=.89). Discrepancies were discussed and resolved with consensus coding.

**In-depth interview and coding.** Two researchers were present for each 15-45 minute interview. One member served as the primary interviewer while the second operated the audio equipment, listened, and asked prompts as necessary to provide sufficient details. The standard interview protocol developed by The Center for Creative Leadership (see McCall, Lombardo, & Morrison, 1988) was tailored for use with college student leaders. The students were asked the following, "When you think back over your time as an undergraduate student, certain events or episodes probably stand out in your mind—things that led to lasting change in you as a leader. Let's start with the first key event that made a difference in you as a leader. What happened? As participants described their experiences, the interviewer and the second member posed follow-up prompts to elicit sufficient detail from the participant, such as ("Please tell me more about that?" or "Can you describe that in more detail?" or "What was important about this event?"). Once they fully described the event, they were asked, "What did you learn from this event (for better or for worse)?" This was repeated until the participant had no more lessons to add. The participants

were asked for two more events and lessons. In the event that they had time and additional events, some students spoke about a 4<sup>th</sup> and in some instances a 5<sup>th</sup> event and the lessons learned.

The interviews were transcribed and prepared for analysis using a pragmatic mixed-methods approach. Specifically, the open-ended interviews were transformed by creating codes and themes (see below), and then the codes and themes were quantified according to their usage in the text (see Creswell, 2009, p. 218). For more information about the codes, see Sessa, Morgan, Kalenderli, & Hammond, 2014).

**Leadership Identity.** Coding for leadership identity was conducted in the following way. Two members of the research team first read and thoroughly discussed two articles by Komives, et al. (2005, 2006) to ensure that they understood the model and that their viewpoints were similar. They agreed that if an interview exhibited mixed examples of leadership identity, they would code using the average identity. Together they looked at 10 randomly selected transcripts and discussed the leadership identity exhibited in each. These transcripts were set aside to be coded later. Each coder then coded each interview individually. As the students in this study were already identified as leaders, codes were as follows: 1.) Leader identified, 2.) Transitioning between leader identified and leadership differentiated, 3.) Leader differentiated, 4.) Transitioning between leader differentiated and generativity, 5.) Generativity, 6.) Transitioning between generativity and integration and synthesis, and 7.) Integration and synthesis. The coders compared their scores and Kappa scores with quadratic weighting were calculated to determine reliability (Kappa=.76). Discrepancies were discussed and resolved with consensus coding.

**Leadership Principles.** The same two members of the research team who coded Leadership Identity also coded Leadership Principle. After completing the first round of coding, they waited one month before beginning coding the second round. At that point, they read and thoroughly discussed Drath's Leadership Principles (Drath, 2001) to ensure that they similarly understood the principles. It was determined that if an interview exhibited mixed examples of leadership principles, they would code using the most advanced principle discussed because each higher level transcends rather than replaces the earlier level. Together they looked at 10 randomly selected transcripts and discussed the leadership principles exhibited in each. These transcripts were set aside to be coded later. The coders then separately coded each interview transcript into one of 5 categories (1.) personal dominance, 2.) transitioning to interpersonal influence, 3.) interpersonal influence, 4.) transitioning to relational dialogue, and 5.) relational dialogue) and compared their scores. Kappa scores with quadratic weighting were calculated to determine reliability (Kappa=.83). Discrepancies were discussed and resolved with consensus coding.

## Results

MER codes ranged from 2 (absolute/transitional) to 6 (independent/contextual) with a median of 3 (transitional). Eight people (17%) scored as absolute/transitional, 17 (36%) scored as transitional, 14 (30%) scored as transitional/independent, 6 (13%) scored as independent, and 2 (4%) scored as independent/contextual. An example of a response to a question from the MER



asking “Do you prefer classes in which the students do a lot of talking or where students don't talk very much?” from a student who was coded as being in the absolute/transitional category is:

Where students do not talk very much. Because the majority of students take class time up asking over detailed or oversimplified questions and I find it a waste of time that the professor could be spending reviewing important topics. I will not be distracted by the confusion of my classmates.

An example of a response from a student who was coded as being in the independent/contextual category for the same question:

I prefer students do a lot of talking because it allows them to develop ideas and concepts out loud in class, demonstrating what and how they came to a conclusion. It offers students an open environment to challenge ideas. I believe it's advantageous because it allows students to become involved and prevents classes from becoming boring and repetitive. Also, I feel it helps the learning process to develop and challenge ideas of other students, professors, and even renowned thinkers in a specific field. I feel it forces students to take a more active role in self- preparation outside of class which many students are reluctant to do. I like to see both challenges of members in a class as well as further development of ideas.

LID codes ranged from 1 (leader identified) to 4 (transitioning between leadership differentiated and generativity) with a median of 1 (leader identified). Twenty-seven students (54%) scored as leader identified, 13 (26%) scored as transitioning between leader identified to leadership differentiated, 7 (14%) scored as leadership differentiated, and 3 (6%) scored as transitioning between leadership differentiated to generativity. Here is an example of a response regarding why a student was chosen for the study from a student who was coded as being in the leader identified category:

Probably just the title of my position. President of RHA is pretty up there in the eyes of the staff here and campus residences. I am like best friends with the VP of Residence life. Once you have a title, people just look at you differently. Whether you are doing great or not, cause half the time they don't know what you are doing, they just know what the organization is doing as a whole. Half the time they just throw your name out there for stuff.

An example of a leadership event from a student who was coded as being in the leader differentiated/generativity category:

(As) part of my leadership development internship, we hold these LEAD and GOLD seminars. It's two 9-week seminars; the lead program is in the spring semester and the gold seminar is in the fall semester. I was chosen to be the coordinator for both programs. That was an honor as an undergraduate student. This past semester I was able to work with 26 students, who were mostly freshman and were kind of interested in leadership but did not really know what it was about, but were nominated by professional staff members on campus. It was good to work with these since I went through the

program as a freshman. Now that I'm a senior I'm watching these freshman grow. It's so gratifying getting all of these Facebook messages and emails telling us it was such a good program. It was just extremely gratifying to actually see that while making a difference in these freshman lives. They're going to go on next semester to the gold program. I'm not going to be here but I'm confident that they're going to be able to learn just as much and I'm going to give my internship to somebody else and they will be able to also handle these students. It's gratifying to watch the leadership develop in others.

Principles of leadership codes ranged from 1 (personal dominance) to 4 (transitioning into relational dialogue) with a median of 1 (personal dominance). Thirty nine students (78%) scored as using the personal dominance principle, 6 students (12%) scored as transitioning into interpersonal influence, 3 students (6%) scored as using the interpersonal influence principle, and 2 students (4%) scored as transitioning into relational dialogue. Here is an example of a lesson learned from a student who was coded as being in personal dominance category:

Even if there's other executive board members, at the end of the day, the president is the face of the club. If anything goes wrong it's on you, so you have to make sure that even, let's say the treasurer's not doing their job, you have to fill in, and as much as you tell them "it's your job", there's deadlines and if they're not doing it you're gonna have to be the person to fill in.

Here is an example of a lesson learned from a student who was coded as transitioning into relational dialogue category:

I guess I call it leading because plenty of times that's what we had to do. At times you were the leader and everybody is going to follow you, or you follow. That was great because you're working with staff and faculty following or leading throughout what they want you to do and that was wonderful because it gives you a good sense that everybody is human.

See Table 1 for median and Spearmann's Rho correlations of each variable.

Table 1: Medians and Spearmann's Rho correlations for Constructive Development, LID, and Leadership Principle Codings

	Median	Constructive Development	Leader Identity
Constructive Development	3		
Leader Identity	1	-.07	
Leadership Principle	1	-.15	.39**

N=50, \* p<.05, \*\* p<.01.

We predicted that the three measures of development (MER, LID, and Leadership Principles) would be related and that students would have lower scores Principles of Leadership than LID scores.

To test our first prediction that the three development variables would be associated, we used Spearman's Rho correlations. As seen in Table 1, Constructive Development (MER score) was not significantly correlated with either LID or Principles of Leadership while LID and Principles of Leadership were significantly correlated ( $r=.39$ ,  $p<.005$ ). These findings partially support our predictions of relationships between constructive development, LID and leadership principles.

To test our second prediction, a Wilcoxon matched pairs signed rank test was conducted to determine whether there was a difference in the ranking between the LID and Leadership Principles. Results of that analysis indicated that there was a significant difference in how the students were ranked on the two variables ( $z = -2.89$ ,  $p < .01$ ). Although the medians were the same, the results indicate that LID scores were significantly higher rankings than Principles of Leadership.

## Discussion

The purpose of this research was to begin to test the idea that a leader's level of constructive development is associated with their development as leaders in such areas as the way a leader identifies his or herself as a leader and understands leadership. Although these relationships have been proposed in the theoretical literature on leadership development (e.g., Bartone, et al., 2007; Day, et al., 2009, McCauley, et al., 2006), to date there has been little empirical evidence to support these assertions. Our research is one of the first to explore whether and how a student's constructive development is related to their leader identity development and their understanding of leadership.

We found that most of our junior and senior student leaders were in the transitional stage (36%) or transitioning between transitional and independent stages (30%) of constructive development. This is in line with Baxter Magolda's (1992) longitudinal interview study of constructive development with 101 students. She found that most juniors and seniors were in the transitional knowing stage. Similarly, Kegan (1994) reported that in a sample of 282 relatively advantaged adults, only 41 percent had reached the Institutional/Modern order of development, suggesting that most adults are at similar levels of development as the college students in this study. However, our research found students less likely to advance in their level of constructive development than did a recent study of military officer cadets (Bartone, et al., 2007), which found that students increased in Kegan's Interpersonal stage from 16% in Year 1 (freshman year) to 44% in the senior year. Additionally in the military cadet sample, while there was no evidence of students at the Institutional level in Year 1, 6% were assessed to be in the stage 3-4 transition at Year 2, and 19% of the senior Year 4 sample scored in the stage 3-4 transition zone whereas only 4% of our juniors and seniors scored at this level. This suggests that military academies may develop some students more quickly than other university settings.

In terms of leader identity development, most students saw leadership as a position and the person in the position as being the leader. Furthermore, in terms of their understanding of leadership, according to the results of our study, most college leaders believe that leadership is a personal characteristic of the leader; some people, such as themselves, are leaders, while others

are not. There is little empirical research on either LID or Drath's principles of leadership, however, our findings are similar to the few other empirical studies on college students and LID that have found that college students, in general, tend to have a more hierarchical than collaborative views of leadership (Fischer, Overland, & Adams, 2010; Haber, 2012) and that they view leadership as a characteristic of leaders (Shertzer & Schuh, 2004).

We did not find a significant relationship between students' constructive development and their leader identity or their understanding of leadership. Although students varied in their constructive development as measured by the MER, there was little variance in their leader identity, with most scoring in the "leader identified" level and little variance in their understanding of leadership with most scoring in the "Personal Dominance" level. While the measure of constructive development used in this study was appropriate for college students, the measure provides a look at students as they transition within Kegan's Interpersonal/Traditional order of Development into the Institutional/Modern order of development (1988, 1992). And all but a few of the students in this study would be considered in the Interpersonal/Traditional order of development. Both Komives, et al., (2006) and McCauley, et al., (2006) theorize that identity changes and understanding of leadership changes occur between Kegan's Interpersonal/Traditional order and the Institutional/Modern order of development. Thus, there was range restriction in all three constructs. Most students were in the same level of constructive development as defined by Kegan (1988, 1992), leader identity development, and understanding of leadership. In future research, samples of leaders with a larger range of development levels need to be used. However, as noted above in Kegan's (1994) research, this constriction of range may be naturally occurring given that most adults don't progress past certain developmental levels.

We did find a relationship between leader identity and understanding of leadership. According to our research, most students see leadership as a position and the person in the position as being the leader. They believe that the responsibility of the leader is to get the job done. Followers do not do leadership; they look to the leader for direction and do what needs to be done. Furthermore, they believe that leadership is a personal characteristic of the leader.

We found evidence to support the idea that leader identity develops before understanding of leadership. This suggests that students will not develop progressively more complex ways of thinking about leadership until they find that their current constructions of leadership conflict with the experiences they are encountering.

**Limitations and Future Research.** This study included a small sample size of traditionally aged college juniors and seniors who were in the role of leader and had been identified as a leader by administrators at 4 colleges and universities. More research is needed to extend the sample size, the sample age range, and the sample area to include a broader array of student leaders across the United States (and then globally). Research should also include students who are not in formal leader roles but may have experience leading in 'non-traditional' ways. In addition, more research is needed to determine the appropriate constructive development model to use. In this study, we failed to find the hypothesized relationship between our measure of constructive development and measures of leader development. Finally, our

research only considered two levels of Day et al.'s (2009) model. Future research needs to consider all levels of this model, including leader skills and competencies.

**Practical implications.** There are a number of practical implications as a result of this study. First, as faculty, staff, administrators and coaches to developing student leaders, we need to be aware of our own “ways of knowing”, our own leader identity, and our own beliefs about leadership. Research suggests that the majority of adults (that is, us) are at similar levels of constructive development as their advanced college students. In order to advance college students in leadership understanding and identity, our own understandings of leadership need to be in alignment with the practices and programs that we are espousing to our students.

Second, we need to listen and observe student leaders to determine what their developmental needs are and develop them from there. Do they still need to differentiate themselves from others and take on the title of leader? Are they able to reason, discuss, and negotiate? Or are they able to facilitate the group to create a new direction for their club? Each of these developmental levels requires a different skill set from the student and the leader: to ask a student who thinks “they are a leader and others are not” to facilitate a group to come to a decision rather than making the decision themselves won't “feel like” they are doing leadership. Faculty and staff who are themselves developed to a higher level can provide holding environments that confirm a student's current level of development as well as challenge them to the next level. We can ask for students' opinions, probe, encourage them to articulate the reasoning behind their opinions, encourage them to try things (even if we suspect they might fail), let them fail, and help them reflect after they have done something to determine what worked and what didn't.

Third, our findings suggest most college students identify as individual leaders (or not) and understand leadership as a personal characteristic. And researchers suggest this “individual” identity is a necessary stage in the process of developing a leader identity (Komives et al. 2005, Lord & Hall, 2005, McCauley, et al., 2006). However, this is contradictory to the type of leadership currently promoted by leadership scholars and educators as necessary to solve the problems of tomorrow (Komives, Dugan, Owen, Slack, & Wagner, 2011). Thus, students (and many of us) may “get” the idea of Komives, et al.'s (2005) Leadership Differentiated (and more advanced identities) and Drath's (2001) Relational Dialogue, but they will not be able to embody these ideas “in the moment” when they are leading without support and scaffolding from mentors. For example, one of the students in this study read part of Drath's (2001) book for a freshman class then re-read it years later for a leadership capstone course. He mentions the reading; “It taught me a lot of different things, principles of leadership that changed my overall perspective when I came to the university.” But his interpretation of it was, “I felt that there was no wrong way to lead” and he learned “not to be an authoritative leader.” Our findings suggest that leadership identity development prefigures understanding of leadership, which indicates that students won't understand leadership in more complex ways until their current constructions of leadership conflict with the experiences they are encountering. Perhaps college leader development can involve providing experiences that conflict with students' current understanding of who they are as leaders.

Finally, similar to above, the realization that students understand leadership as a personal characteristic may attract some students to participate in leader development programs while in college but may also discourage or even repel other students from participating. Colleges and universities need to determine who is participating in their current leader development programs and find ways of making these programs more attractive to a wide variety of students. This will help colleges and universities find ways to more fully realize higher education's potential to better prepare all college students to become citizens capable of participating in a democratic and progressive society and provide leadership, innovation, and stability for society's long-term health and posterity (Astin & Astin, 2000; Dewey, 1938, as cited in Benson, Harkavy, & Puckett, 2007).

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