JOURNAL OF LEADERSHIP EDUCATION

JANUARY 2021

RESEARCH MANUSCRIPT

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REFLECTING THE WAVE, NOT THE TITLE:

Increasing self-awareness and transparency of authentic leadership through online graduate student leadership programming

Abstract

Today's graduate education should provide students with technical specialization and professional skills to holistically prepare them as genuine leaders, ready to address today's complex and ethical dilemmas in the workplace. Inclusion of professional development complements their technical specialty by providing opportunities to develop successful, self-aware, authentic leadership within their fields. One way to develop these skills is through an interdisciplinary, online leadership development course. This study examines the effectiveness of an online leadership course in building authentic leadership skills over five academic semesters. Scores on the authentic leadership measure show statistical significance between the pre- and post-tests, with positive effect sizes in transparency and self-awareness. Results suggest that this online course, focused on personal and professional development, improves students' understanding of themselves and the world around them and capacity to gain the trust of their followers.

Introduction

In historical and contemporary contexts, graduate students have strived to succeed in academic systems of hierarchy (Burris, 2004; Clauset, Arbesman, & Larremore, 2015). Graduate students are challenged to keep it all together, managing the daily chaos of juggling research and teaching, training others, and interacting with advisors and principal investigators with high expectations, all while aspiring to live fulfilled lives. Despite general perceptions that these individuals dedicate most of their time, energy, and resources to their role as full-time students, many graduate students are employed beyond the university and conduct research (Pearson, Schuldt, Romero-Canyas, Ballew, & Larson-Konar, 2018). Graduate students experience even further strain as they step into the professional world. Demonstrated capabilities in writing proposals and grants, managing budgets, leading others, and effective time management are often assumed competencies (Barnett, 2005). These capabilities and other transferable skills, those that are not discipline-specific and are applicable to job requirements (Deal & Hegde, 2015), such as effective communication (Kovac & Sirkovic, 2016), teamwork, and leadership (Denecke, Feaster, & Stone, 2017), are often not fully developed in today's graduate student. Specifically, communication, analytical skills (Accrediting Council for Independent Colleges and Schools, 2011), teamwork, critical thinking, ethical decision-making, and the ability to apply knowledge to real-world settings are lacking in today's graduates (Association of American Colleges and Universities, 2015).

There is growing awareness that graduate schools generally focus on technical proficiencies and specializations, at times, excluding the development of critical professional skills (Denecke et al., 2017). Strengths identified as developed and learned in graduate school have been found inconsistent with those desired by students' future employers in a large study of academic faculty, graduate students, and government employees. This study, authored by a team representing multiple sectors, focused on determining students' preparedness and ability to execute skills necessary to meet 21st-century challenges. Performance gaps were related to verbal and written skills and problem-solving, in addition to science-specific competencies (Denecke et al., 2017). Due to such disparities, industries have perceived their employees to be ill-equipped for the workforce and have been dissatisfied with job performance (Sundberg et al., 2011). Although graduate students demonstrated skills in writing technical and research papers, employers noted their inability to communicate and collaborate with laypeople and public sector leaders. Researchers, therefore, called for university faculty and administrators to ensure graduate students are better equipped with the most appropriate tools for success in the workforce by including transferable skills, such as effective writing and data management and analysis, in curricula and programming (Sundberg et al., 2011).

Employers' diverse expectations have demanded that graduate education expands beyond traditional higher education pedagogy and mastery of technical specializations to address the need for learned intra- and interpersonal skills (Osmani, Weerakkody, & Hindi, 2017). Building proficiency in professional development domains takes time and investment in personal growth and self-efficacy. Although some students receive training in these areas, the need for these assumed competencies often arises unexpectedly and derail otherwise well-trained scholars. Graduate schools play a significant role in supporting professional development for students (Deneck et al., 2017) and do not serve their students to the utmost capacity if they do not include meaningful transferable skills training. Transferable skills can be developed at the graduate level through intentional leadership programming that emphasizes authentic leadership.

Authentic Leadership (AL) is a values-based leadership theory that promotes awareness within the leader of who they are and how they are perceived by others (Gardner, Cogliser, Davis, & Dickens, 2011). AL includes four constructs (self-awareness, transparency, balanced processing, and moral perspective) that promote positive psychological capacities and a positive ethical climate to foster positive self-development (Walumbwa, Avolio, Gardner, Wernsing, & Peterson, 2008).

Review of Related Literature

Authentic Leadership

Authentic Leadership has shown significant value in the workplace. Authentic leaders promote positive ethics, exhibit self-awareness and transparency, promote trust among followers, and encourage positive self-development (Avolio & Walumbwa, 2014; Luthans & Avolio, 2003). Therefore, the creation of AL development opportunities within graduate school could significantly benefit students' professional lives (Fallatah & Laschinger, 2016).

Authentic Leadership is one of the largest growing trends in leadership development (O'Brien, 2016). Graduate courses and accompanying AL research are increasing in popularity (Chao et al., 2018; O'Brien, 2016). For example, a flexible-credit AL elective course was delivered to Doctor of Pharmacy students at the University of Iowa (Patterson et al., 2013). According to researchers, these students were better able to serve as leaders in their practice sites, the

pharmacy profession, and within their local communities due to their heightened ability to learn more about themselves and the groups with which they interact (Patterson et al., 2013). Furthermore, several graduate leadership curricula currently exist in which modules or classes address authenticity (John Hopkins University; Azusa Pacific University; Penn State; Bethel University; Gannon University; Mills College; Wilkes University), have specific learning objectives related to the development of AL (Champlain College Online; Xavier University; Goodwin College), or promote AL development through required internships or residencies (George Washington University Graduate School of Education and Human Development, University of Delaware School of Leadership; University of Alabama Birmingham School of Education; Hood College).

While AL is developed through the strengthening of all four constructs, the results of the present study indicate the significance of self-awareness and transparency as essential for the development of authenticity among leaders. Thus, we further explored the literature on these two AL constructs.

Self-awareness. Self-awareness refers to understanding how an individual derives and makes meaning of the world and how that meaning affects their view of themselves over time (Datta, 2015). A leader's self-awareness of their values, cognitions, and emotions is a significant component of AL. This self-awareness occurs when individuals are aware of their existence and what constitutes that existence within the contexts in which they operate and lead (Silvia & Duval, 2001). Self-awareness is not an end-goal, but an ongoing process of deeper understanding of one's strengths, purpose, values, beliefs, and desires (Avolio & Gardner, 2005). High levels of self-awareness have been associated with high levels of leadership competence (Fletcher, 1997), individual and organizational performance (Moshavi, Brown, & Good, 2003), positive follower attitudes, behaviors, and performance (Avolio & Gardner, 2005), and enhanced emotional intelligence (Higgs & Dulewicz, 2002).

Transparency. Transparency refers to presenting one's authentic self to others, which promotes trust among followers (Datta, 2015). Through the lens of AL, transparency is "relational in nature, inasmuch as it involves valuing and achieving openness and truthfulness in one's close relationships" (Kernis, 2003, p. 15). One of today's most significant challenges rests in the ability of leaders to gain their followers' trust (Norman, Avolio, Luthans, 2010). As an authentic leader, one's transparency is essential to developing trust (Gardner et al., 2011; Walumbwa et al., 2008). Transparent leaders assist followers by encouraging acknowledgment and presentation of all aspects of themselves through self-awareness and disclosure of values, motives, emotions, and goals (Luthans, Norman, & Hughes, 2006). Such disclosure is essential to transparency because it allows for the authentic sharing of information between leaders and followers (Avolio & Gardner, 2005).

Purpose and Hypotheses

Considering the efforts made to develop AL in graduate school, evidence-based programming must be at the forefront. Therefore, we included a measures-based evaluation in our graduate leadership course. This evaluation's results were used to measure the effects of the course on students' AL and to hone material for future programming. We hypothesized that students would experience significant increases in the self-awareness and transparency subscales of the AL measurement due to participation in our leadership course.

Description of Program and Methodology

Tidal Leadership

At a large, Land-Grant institution in the Pacific Northwest of the US, a graduate-level course was developed and offered to promote AL skills and prepare graduate students for success within and beyond graduate school. The Tidal Leadership Program (Tidal) is an interdisciplinary leadership

development course offered online and for academic credit to graduate students. Tidal was designed to shift the hierarchical context of academia by providing leadership training for each student, complementing their studies and the complexities of navigating multiple roles as many have additional jobs, familial and financial responsibilities (Pearson et al., 2018; Hyun, Quinn, Madon & Lustig, 2006), while addressing the need for training that serves to forward graduate students in what's next (Greenwald, 2010). The course uses interactive, facilitated modules and reflections to support students with creating and implementing their personalized value-based leadership platform.

The purpose of Tidal is to provide students with opportunities to acquire beyond the discipline skills that are essential for success in the workplace. This course shifts the focus from thinking about one's role as defined by a given title to a mindset that embraces who one is being as they execute leadership skills. Theoretically grounded in Acceptance and Commitment Training (ACT) (Hayes, Strosahl, & Wilson, 2012) and infused with evidence-based approaches, such as social belonging, mindfulness, and growth mindset (Miyake et al., 2010; Shearer, Hunt, Chowdhury, & Nicol, 2016; Yeager & Dweck, 2012; Yeager & Walton, 2011), Tidal fills a need to enhance graduate students' leadership and transferable skills. Uniquely experiential for an online course, Tidal focuses on supporting students' self-concept and progression through leadership development stages (Komives, Mainella, Longerbeam, Osteen, & Owen, 2006) and making values-based decisions in the face of challenges.

The objectives of Tidal include: 1) exploring self-authoring an extraordinary career and embracing action steps toward achieving that vision; 2) acquiring strategies and approaches for navigating challenging conversations with courage; 3) building connections with peers, mentors, and role models with demonstrated excellence in leadership and relationship building; and 4) developing effective life skills that expand effectiveness as a leader. Specifically related to self-awareness and transparency, students build skills in 1) articulating their personal leadership strengths, identifying areas to expand or develop, and stating their leadership philosophy; 2) gaining awareness of how or why they behave or respond in a particular way, noticing patterns or triggers of behavior, as well as the influence those patterns have on relationships and outcome; 3) assessing situations from an objective perspective, identifying options that facilitate change, and evaluating impact; 4) identifying underlying complaints and taking action in alignment with their values to address challenging situations; and 5) creating action plans for effectively navigating conflict.

Tidal consists of 12 modules in which students engage with course material through readings, videos, and interactive exercises. Students also engage in threaded discussions and synchronous meetings with their peers and instructors to reflect on their understanding and application of course material. Students build a leadership portfolio and complete eight written reflections that demonstrate their leadership skill expansion. The instructor evaluates the portfolio to determine if the objectives of the exercise are achieved.

Methods

This study was deemed exempt from review by the Institutional Review Board. This study used an emergent mixed methods design (Creswell & Plano Clark, 2010). First, we used a survey methodology with a group-administered questionnaire to measure students' AL skills before and upon completion of Tidal. Following the quantitative results, an artifact analysis was conducted of student reflections to provide further insight regarding AL subscale items and constructs.

Evaluation procedure. The course evaluation consisted of a pre-test survey at the beginning of the semester and a post-test survey at the end of the semester administered using an online survey. Students were not offered any incentive to participate, and the survey took about 15 minutes to complete.

Artifact Analysis. Student reflections were self-

recorded and submitted via the online educational platform during the semester. Concluding the pre- and post-test surveys, we analyzed student reflections for emerging themes (thematic analysis) (Yin, 2011), using Apriori codes (Harding, 2013) of self-awareness and transparency, subconstructs of AL determined significant in the quantitative results. The analysis identified similarities within the codes, building evidence to establish overall perspectives and interpretations (Creswell and Plano Clark, 2007).

Sample. The population of this study included all students enrolled in Tidal during five consecutive semesters (Fall 2015 - Spring 2018). Total enrollment in the course during these semesters was 101 students. Demographic information was not collected; however, population information based on university enrollment records showed that a majority (55) of participants were Masters students, forty-four were Ph.D. students, and one student was undecided. Thirty-three different academic disciplines were represented, ranging from agricultural and environmental sciences to educational leadership and business administration, with the largest representation from the agricultural sciences field (49). Participation in the assessment was voluntary and 38 students participated.

Authentic Leadership Instrument. The 16-item Authentic Leadership Questionnaire (ALQ) (Walumbwa, et al., 2008) was used to measure AL development. The ALQ measures four constructs of AL. Confirmatory Factor Analysis of the ALQ showed that there are four dimensions and those dimensions converge to form a higher-order factor of AL (Walumbwa et al., 2008). Good internal consistency (Cronbach's alpha (α)) ranging from .76 to .92 supports the four-factor model of the ALQ (Walumbwa et al., 2008). The ALQ has shown validity across samples from the U.S., as well as China and Kenya, with strong evidence that the measure is distinct from existing measures of other leadership styles (Gardner et al., 2011; Walumbwa et al., 2008).

The Self-Awareness subscale assesses an understanding of meaning-making and how that meaning affects one's view of themselves (e.g., "I seek feedback as a way of understanding who I really am as a person"). The Relational Transparency subscale assesses the presentation of one's authentic self to others (e.g., "I let others know who I truly am as a person"). The Balanced Processing subscale assesses the objective analysis of other perspectives during decision-making (e.g., "I listen very carefully to the ideas of others before making decisions"). The Internalized Moral Perspective subscale assesses self-regulation and decision-making guided by values (e.g., "My actions reflect my core values"). A higher-order leadership scale was calculated by averaging all items across subscales. Participants were asked to rate themselves on how frequently each statement aligned with their leadership style, using a five-point Likert scale ranging from not at all (0) to frequently, if not always (4). Average scale reliabilities, calculated using Cronbach's α across all semesters, were .60 (Self-Awareness), .39 (Relational Transparency), .64 (Internalize Moral Perspective), .39 (Balanced Processing), and .76 (the higher-order Leadership Scale).

Results and Discussion

Paired t-tests of students' AL scores showed statistically significant change on two of the subscales and overall AL between the pre- and post-tests, with moderate to large positive effect sizes (Cohen's d) ranging from 0.40 ($p = .005$) to 0.78 ($p < .001$). There were significant increases for Self-Awareness ($p < .001$, $d = 0.78$), Transparency ($p < .001$, $d = 0.57$), and overall AL ($p < .001$, $d = 0.73$). There were not significant increases for balanced processing ($p = .026$, $d = 0.41$) and moral perspective ($p = .005$, $d = 0.40$) (see Table 1).

Table 1
Changes in Authentic Leadership higher-order and subscale scores from pre-test to post-test, averaged across graduate student cohorts.

Scale	n	Pretest		Posttest		*t*	*p*	Effect size (d)
		Mean	SD	Mean	SD			
Authentic Leadership	38	2.91	0.45	3.22	0.35	5.14	<.001	0.73
Self-Awareness	38	2.51	0.72	3.03	0.59	4.44	<.001	0.78
Relational Transparency	38	2.88	0.52	3.15	0.41	4.10	<.001	0.57
Balanced Processing	38	3.06	0.53	3.26	0.46	2.33	.026	0.41
Internalized Moral Perspective	38	3.25	0.55	3.45	0.46	2.98	.005	0.40

Note. Overall Authentic Leadership is the average score across three subscales of the Authentic Leadership scale (Walumbwa et al., 2008).

Although the results did not show significant increases in AL constructs, they did show increases across all subscales. We theorized that these increases were associated with Tidal's intentional scaffolding of self-development and understanding through program delivery. More explicitly, the program uses an implicit scaffold that builds on foundational intrapersonal skills (e.g., personal awareness and adaptive self-management), followed by interpersonal competencies (e.g., managing personality types, delegation, conflict resolution), and real-life applications (e.g., building consensus and courageous conversations) that allow for practice and integration. In addition, the interdisciplinary composition of Tidal participant groups may have provided space for students to gain feedback and insights from a variety of perspectives that supported these increases.

Significant increases were seen in the Self-Awareness and Transparency subscales upon completion of the course. Authenticity requires heightened levels of self-awareness through ongoing self-reflection (Avolio & Gardner, 2005). In Tidal, critical time to reflect is allotted through the asynchronous timing built within the online delivery. Transparency is then practiced through the presentation of their authentic selves to their peers which builds trust (Datta, 2015; Gardner et al., 2005; Walumbwa et al., 2008). Participants expressed the value of self-disclosure and discussion with peers through the threaded discussion dialogue outlined below:

> "This group was so committed, open, and honest. More so though, I am thankful that each person really brought a different perspective and that we got to see how important having various perspectives and personalities makes for a much richer and rewarding experience."
>
> "I think all of the introspection and self-reflection certainly have made us all more effective at engaging with others in a more thoughtful manner."
>
> "I am most proud that I was able to look into my personality and those of others around me and be able to not only learn about them, but also accept and understand them to better know how to make adjustments my behaviors to have a better interaction."

Interdisciplinary online programs, such as Tidal, are essential for allowing diverse perspectives to be heard and to further genuine discussions and actions. Transparent leaders encourage trust through self-awareness and disclosure of values, motives, identities, emotions, and goals among their followers (Luthans et al., 2006). The purposeful delivery of Tidal ensures opportunities for these transparent conversations to take place. The online space also provided students with a peer community for discussion, a useful alternative to their lab or discipline groups.

Linking Outcomes to Course Components

Below we discuss Tidal content, programming, and exercises that we suggest are associated with Self-Awareness and Transparency subscale constructs. The discussion presents insights into AL outcomes' perceived association with their corresponding activities towards the beginning, middle, and end of the course.

Self-Awareness. Throughout Tidal, self-reflection was utilized and was intentionally fostered through directed prompts that allowed students to view themselves (and their leadership style) in a raw and genuine manner. We perceive self-awareness to be developed through the following activities: Why Tidal?, Personality Type Exploration, and Complaints to Commitments.

Why Tidal? First, in the course, students are asked to reflect on why they chose to participate in Tidal and what they hope to gain, learn, or take away from it. This process allowed students to set purpose and intentionality for their own experience and engagement in the course. Many of the student responses, outlined in the examples below, further demonstrate a desire to learn more about engaging with those around them and understand how specific actions impact others (self-awareness subscale item, ALQ).

> "I want to learn what to do in difficult situations when personnel are not accepting required changes by the company. I want to learn how I can step even farther away from my comfort zone and become a more charismatic yet direct leader to ultimately understand that the failures and successes that I have at work do not determine who I am."

> "Because I want to transition to a Director position once I complete my master's program (as opposed to staying at a Manager level), I need all the help I can get because I know being a director requires a lot of interaction with personnel and persuasion to allow positive changes in the organization."

> "In my work life, as a farm owner and employer, I need to communicate goals effectively and also moderate interpersonal interactions that threaten to lower morale and productivity."

Personality Type Exploration. Halfway through Tidal, students are introduced to a personality type assessment adapted from Merrill and Reid (1981) to increase awareness of their own and others' behavioral tendencies so that they can learn to lead more effectively. By increasing self-awareness of their behaviors (constructive and destructive), students are able to better self-manage their behavioral choices instead of simply reacting to a situation. Self-awareness and self-management are developed through a reflection paper, allowing students to understand how specific actions impacted others (self-awareness subscale item, ALQ). Next, students engage with peers through a discussion forum to understand how to better communicate and interact with others from differing personality types. They propose questions about personality types they want to understand better. Comments are shared through the discussion forum, allowing students to seek feedback to improve interactions with others (self-awareness subscale item, ALQ).

Complaints to Commitments: Later in the course, students are introduced to a process called "Complaints to Commitments" by Kegan and Lahey (2001) designed to support students in overcoming obstacles or barriers they may encounter when working towards goals. Students identify a complaint in their life they would like changed and are then guided through a process to transform that complaint into a values-based commitment. This exercise allows students to notice how their complaints are tied to their personal values and how they can take agency in changing their situation. Students share their complaints, values, and corresponding actions with classmates to receive feedback and insights from others on how they might best move forward as leaders. Engaging in the Complaints to Commitments process allows students to think about when it is time

to reevaluate my position on important issues (self-awareness subscale item, ALQ). Examples of such reevaluation are outlined in the student reflections below, drawn from the Complaints to Commitment activity:

> "As this is a bit of an emotionally charged situation, it is a great time for mindfulness and utilization of ACT. Being able to take a step back and really notice my thoughts/ feelings and not making them facts, but instead data is helping me to regain some clarity on the situation at hand."

> "Being a leader has to start with the example you set in yourself. There will always be new people and new challenges where you will need to stop and re-evaluate the situation and potentially change tactics. It's about constantly growing yourself to be able to change and adapt with the situation."

> "One adjustment that I found useful was the ability to change my definition of a task. I know this does not sound like a huge deal. However, this allowed me to adjust my perception. I learned I become narrowly focused on how something should be completed and let my perception drive my frustration. By communication with my family as a group, I was able to change my perception to become unified for a common goal – which allowed me to collaborate successfully."

Transparency. The course format encouraged self-disclosure through reflections, peer work, and class discussion forums. We believe this format promoted an increase in trust among relationships over the duration of Tidal, reflected in the measured increase in the Transparency subscale (see Table 1). We think transparency was developed through the following activities: Emotional Agility, Notice-Adjust-Evolve, and Crucial Conversations.

Emotional Agility. Early in Tidal, students are encouraged to develop their Emotional Agility by taking intentional notice of how their emotions influence their reactions to various situations for 48 hours. This activity encourages students to create space for their emotions by writing down descriptions of their experiences in an emotions log. Students then view one another's comments about their emotional reactions and provide ongoing dialogue in the discussion forum. Engaging in emotional agility openly in this activity allows participants to display emotions exactly in line with their feelings (transparency subscale item, ALQ).

Notice-Adjust-Evolve. Halfway through the course, students are asked to assess their personal level of engagement in the course and make changes if they are dissatisfied with their participation or results. Students are then asked to apply an assessment of Notice-Adjust-Evolve to a challenging situation they were currently facing in their leadership journey. Intentional reflection prompts encourage students to clarify the situation by noticing what was or was not working well and making corresponding adjustments to areas that were not working well to improve the situation. This process allows students to better understand challenging situations and how to transparently move forward when things are not going well. Engaging in this Notice-Adjust-Evolve process allows students to admit mistakes when they were made (transparency subscale item, ALQ) in challenging situations and also to make adjustments to improve them.

Crucial Conversations. Toward the conclusion of the course, students are introduced to various conflict styles (Kilmann & Thomas, 1975) to gain self-awareness of their own style, as well as to be exposed to others' styles. Students are then encouraged to engage in a crucial conversation (Patterson, Grenny, McMillian, & Switzler, 2012) with a person they were currently in conflict. The purpose of this activity is for students to self-reflect on their own assumptions and relationship with conflict, share reflections on navigating conflict, and explore ways in which challenging situations influence their ability to lead effectively. Engaging in crucial conversations allows participants to tell their hard truth, say exactly what

they mean, and encourage everyone to speak their mind (transparency subscale items, ALQ). Examples of student insights are outlined in the student reflections below, drawn from the Personal Conflict Scenario portfolio piece:

> "I think I need to understand this coworker's values much better to be able to accurately address this conflict. For that, I would need to directly address my concerns and be open about the way I feel in certain situations."
>
> "I will try to offer my side of the conflict and my perspective, and hopefully, this will help them see what we're trying to change."
>
> "I am making sure I remain calm; he is getting quite heated and two upset people never solve anything. I am also trying to make sure I explain why I am enforcing this."

Recommendations and Conclusion

There is a need for graduate students to develop and practice transferable skills such as effective communication and leadership (Denecke et al., 2017; Kovac & Sirkovic, 2016, Sundberg et al., 2011). AL has proven to be a significant skill in the workplace. With the increase in AL instruction within graduate and non-accredited professional development programming nationally (O'Brien, 2016), programs, such as Tidal, that are based on AL show promise for filling this gap in graduate student professional preparation. Since Tidal is open to graduate students from any higher education institution, it has the potential to provide professional development to graduate students nationwide.

This study shows significant increases in self-awareness, transparency, and overall AL, and non-significant increases in a balanced process and internalized moral perspective. These results suggest that through Tidal, graduate students improved their understanding of how they authentically make meaning of themselves and the world around them (Datta, 2015). Additionally, through the development of increased transparency, Tidal addresses our leaders' challenge, gaining the trust of their followers (Norman et al., 2010).

Based on the results of this study, we provide several recommendations for similar effective graduate leadership programming. First, graduate leadership educators should recruit and market towards an interdisciplinary student population to enhance self-awareness and transparency. Such a diverse composition requires intentionality behind course design and facilitation. In this study, the course structure allowed for ongoing discussion and student engagement. The Students' diverse composition resulted in differing perspectives, allowing students to explore self-awareness and transparency through diverse lenses.

Secondly, we suggest that graduate leadership educators ensure intentional scaffolding of development into the course design and implementation. Such intentionality in the course builds from personal, internal self-discovery to external application into student personal and professional lives. This scaffolding allowed students in the study not only to gain an initial foundation of deeper self-awareness, but to then build from this foundation by practicing applied leadership skills in a safe environment that offered ongoing feedback and genuine conversations from their peers and instructors. Based on this study's results, it appears that over the course of 16 weeks, students can experience greater self-awareness and develop mindsets poised for meeting career challenges successfully. Future studies regarding the magnitude and evolution of such shifts over time will inform the value of explicitly teaching authentic leadership as part of the graduate curriculum.

Due to the study's small sample size (n=38), significant relationships found within the data cannot be generalized to similar populations. The results of this study can be used as a proof of concept to inform similar studies further. Future research should

investigate the non-significant increases of balanced processing and moral perspective in the ALQ. Beyond this instrument, researchers could examine alternative empirical measurements of AL constructs, including the Leader Authenticity Scale (LAS) (Henderson & Hoy, 1983), the Authentic Leadership Inventory (ALI) (Neider & Schriesheim, 2011), or the Authenticity Inventory (AI) (Kernis & Goldman, 2006). However, limitations also accompany these AL measurements, including limits to reliability and generalizability from the LAS (Gardner et al., 2011), perspectives tuned primarily to employee-supervisor relationships within the ALI (Neider & Schriesheim, 2011), and insight into individual authenticity, without emphasis on overall leadership, from AI-based results (Gardner et al., 2011; Kernis & Goldman, 2005).

Lastly, the limitations of the AL construct itself are worth noting, considering the recent retraction of six scholarly papers by researcher Walumbwa, due to allegations of compromised scientific value (Retraction Watch, 2014). Although this study drew from Walumbwa's previous scholarship, none of the six retracted articles were utilized as foundational scholarship for this study.

Programs such as Tidal show promise for providing leadership professional development and transferable skills to graduate students. Students entering their professional careers with increased authentic leadership may be better prepared to face the daily chaos of juggling research, teaching, managing budgets, writing grants, and leading others. These students will be entering the workforce with not only technical expertise but also with effective and practiced intra- and interpersonal skills.

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