

Effects Associated with Leadership Program Participation in International Students Compared to Domestic Students

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Abstract

International student enrollment in the U.S. higher education system has recently experienced profound growth. This research examines leadership-oriented differences between international and domestic students and focuses on their growth in capacity associated with participation in co-curricular leadership programs. Similarly-sized gains emerged after participation, suggesting that these leadership programs create equal growth effects across both groups. However, the factors that predicted international students' increases in leadership skill were different than their domestic peers, suggesting that developing effective leaders among college students across national background is a non-uniform, complex process. Recommendations include the suggestion for partnerships between international student scholar units and leadership educators, specialized workshops for international students, and creating nuanced curricula based on the various pathways that students take to becoming an effective leader.

Introduction

International students in the U.S. higher education system have traditionally been a small population (Institute of International Education [IEE], 2015). Therefore, developing programs for international students have usually been of low priority (Lee & Rice, 2007). However, in recent decades, in part as a result of efforts to increase tuition revenue (Slaughter & Rhoades, 2004), international student enrollment has experienced profound increases (IEE, 2013). In developing recruitment advantages and in responding to these students' needs, U.S. institutions have recently emphasized multicultural services and programming aimed toward international student development and engagement (Lee & Rice, 2007). The growth of these services currently outpaces studies examining differences between international and domestic students, implicitly assuming the needs of both groups can be met similarly. In response, this study specifically focuses on a growing initiative, student leadership education, and explores the differences between international students and their domestic peers regarding leadership-oriented skills, motivation, and self-efficacy, and the differential effects of leadership education programs on these two populations.

International Student Development and Campus Engagement. Whereas higher education previously enrolled international students to export knowledge, culture, and to build socio-political ties in the past, emerging research suggests that recently higher education has begun to enroll these students to generate revenue (Cantwell, 2015; Slaughter & Cantwell, 2012). Because of this newly adopted motivation, the number of international student enrolled has considerably spiked since the beginning of the millennium – now the U.S. higher education system hosts nearly 1 million international students. The majority of international students enrolled in U.S. institutions hail from China (31%), India (14%), and South Korea (7%) (Institute of International Education, 2015). In aggregate, international students supply U.S. institutions with \$17.7 billion in tuition and fees, contributing \$24 billion to the U.S economy and are responsible for the creation of over 300,000 jobs (Association of International Educators [NAFSA], 2013). Growth of international student enrollment is most evident in large, public research universities (Cantwell, 2015). Because states have consistently reduced financial support to these institutions, these students – especially undergraduates, have become attractive options to help overcome budgetary gaps and control for inconsistent, unreliable levels of financial support from the state (Ehrenberg, 2012; Weerts & Ronca, 2012)

With the additional emphasis on international student enrollment, research surrounding this population has also emerged. Generally, research on international student development is concentrated on exploring and understanding the unique challenges that international students have when interacting with and within U.S. institutions (Chapdelaine & Alexitch, 2004). Findings suggest that the campus environment has not always been welcoming to international students, who often face a wide range of discrimination (Greenblatt, 2005), including stereotyping (Poyrazli & Grahame, 2007) and ridicule of their English proficiency (Cho, 2009). Additionally, resulting from negative interactions with peers, international students may develop perceptions of an absence of institutional support (Cho, 2009), possess a lack of confidence as compared to domestic cohorts (Lee & Rice, 2007), and hold negative views of their domestic hosts (Poyrazli & Grahame, 2007). Moreover, negative exchanges between international and domestic students tend to create barriers to domestic-international student interactions and have led international students to engage in self-segregation (Rose-Redwood & Rose-Redwood, 2013). Although overt negative interactions exist, these barriers could also be unintentionally created due to deficits in training and knowledge necessary to manage cultural differences in Americans (Watt, Golden, Schumacher, Moreno, 2013). Regardless, these barriers often result in a lack of participation by international students in most of the programming offered within American universities (Trice, 2004).

Responding to international students' unique needs, universities have developed International Student Services units [ISS]. ISS offices are designed to serve both regulatory and business functions and act as a centralized hub to promote cultural and social interactions with the campus international student population. Yet, these dual purposes typically result in cultural and social support functioning taking less of a priority (Collier & Hernandez, 2015; Ward, 2015). Even campuses with well-established ISS units experience segregation between international students and their domestic peers, as well as depressed co-curricular involvement from their international population. For example, a recent study on Purdue University revealed fewer than 15% of international students report holding a friendship with a domestic student, and that 29% identified a lack of co-curricular involvement opportunities for international students (Zehner,

2012). Similar concerns have been expressed in other recent studies (Ward, 2015).

The lack of interaction and collaboration between international and domestic students is problematic and likely hinders international students' growth and development. Emerging research suggests that engagement and interaction with domestic populations is necessary for both groups to widen multicultural perspectives (Watt et al., 2013) and is positively linked to increased self-efficacy, higher grades and more satisfying experiences at college (Webber, Krylow, & Zhang, 2013). Therefore, researchers have called upon institutions to be more intentional in cultivating interaction between domestic and international groups (Hu & Kuh, 2003; Chapdelaine & Alexitch, 2004; Greenblatt, 2005).

While campuses struggle to develop viable solutions to encourage international students to more deeply explore co-curricular opportunities and break cycles of self-segregation between international students and domestic peers, a potential means of support is co-curricular leadership education. Leadership training in co-curricular environments, with its focus on career success and pedagogically based in small-group discussion and experiential learning (Owen, 2012), can likely serve as a bridge to broader co-curricular involvement for many international students studying on U.S. campuses. Typical models of collegiate leadership education actively encourage inclusion and acceptance of diverse beliefs (Komives et al., 2006; Owen, 2012), and include curriculum designed to support the creation of authentic relationships between leaders and their team members (Astin & Astin, 2000). By design, programs of leadership education could be used as a lever in addressing various concerns regarding international students' engagement and success.

Conceptual Framework for Leadership Development in Higher Education.

Leadership development has become a progressively important area of student development, as many post-secondary organizations have intentionally incorporated this process into their institutional mission statements (Brookfield, 2012). As a result, leadership education has experienced profound growth in the recent decade (Dugan, 2011). A majority of programs report using community-oriented and relationship-focused leadership models (Owen, 2012), and include collaboration, social attentiveness, confidence, and motivation as central learning goals (Keating, Rosch, & Burgoon, 2014). The conceptual framework for leadership development guiding our research posits that for leaders to be effective, they should possess competence in leadership skill, a degree of leadership self-efficacy, and motivation to put forth effort to lead their peers. Keating, et al. (2014), described such leadership as the *Ready, Willing, and Able* Model [RWA].

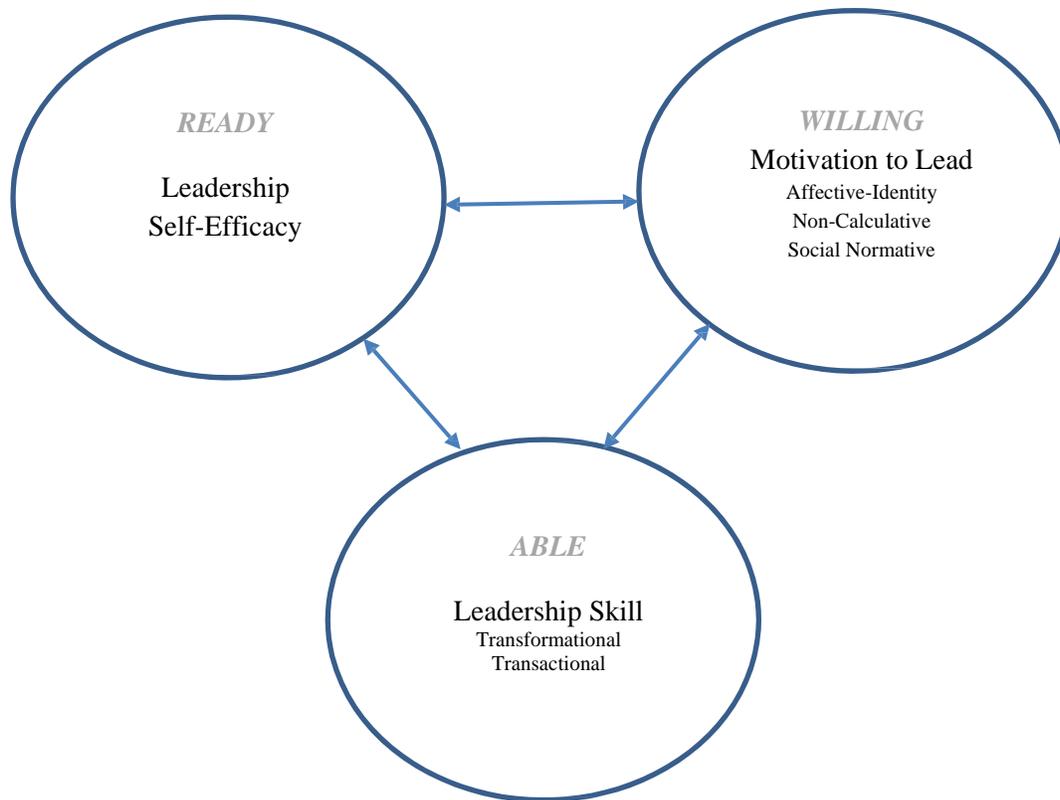


Figure 1. *Leadership Capacity: Being “Ready, Willing, and Able” to Lead*

Leadership Skill. One relationship-based framework that guides leadership education programs is the Transformational Leadership Model, which describes two paradigms of leadership skills: transformational and transactional (Bass, 1998). Transformational skill emphasizes development of authentic relationships (Antonakis, Avolio, & Sivasubramaniam, 2003), and creates a greater sense of shared responsibility between leaders and group members (Rost, 1993). Transformational skills develop increased levels of satisfaction amongst team-members (Riaz & Haider, 2012), thus promoting enhanced levels of team performance (Wang, Oh, Courtright, & Colbert, 2011). In contrast, transactional leaders generally use “contractual relationships” (Bass & Avolio, 1993, p. 116) where followers agree to complete tasks in exchange for rewards (Jung & Avolio, 2000). Although transactional leadership may not elevate performance to levels associated with environments created by transformational leaders (Wang et al., 2011), this style of leadership is also helpful in aiding group performance. Previous studies examining increases in transformational leadership skills in college students found that leadership self-efficacy (Rosch & Collier, 2013) and motivation to lead (Rosch, Collier, & Zehr, 2014) influenced students’ skill gains.

Leadership Self-Efficacy. Leadership self-efficacy [LSE] has recently gained increased attention as a valid measure of leadership capacity (Dugan & Komives, 2010; Dugan, 2011). LSE describes an individual’s self-confidence in effectively performing leadership activities (Murphy, 2002). Previously, LSE emerged as a predictor of increased interest in obtaining

leadership positions (Hannah, Avolio, Luthans, & Harms, 2008). Students whose confidence in leadership activities was reinforced and cultivated report greater levels of self-assuredness in their abilities to engage with others and lead various organizations, whereas students whose confidence was not supported seem to adopt beliefs that constrain their leadership behavior (Shertzer & Schuh, 2004).

Motivation to Lead. Another area of leadership development that is gaining more attention is motivation to lead [MTL] (Arvey et al., 2007; Rosch, Collier, & Thompson, 2015). MTL refers to the energy a person has to engage in leadership behaviors (Chan and Drasgow, 2001). Students' MTL includes three related but separate sources of motivation to lead: Affective Identity [AI], where students possess a self-image as leaders of their peers and therefore volunteer for leadership opportunities; Social Normative [SN], where students lead due to a sense of responsibility to help the group succeed; and Non-Calculative [NC], where students eschew a self-centered cost-benefit analysis of what leadership would gain them and therefore engage in leadership behaviors despite increased workload and stress. MTL is associated with increased leadership effectiveness (Lord & Hall, 2005) and occupying leadership roles (Arvey, et al., 2007). A recent study showed that each of the three separate sources of motivation to lead are predicted, in part, by race (Rosch, Collier, & Thompson, 2015), suggesting that additional study is necessary to understand the role of motivation in developing leaders across social identities.

The overall RWA model describes an interconnectivity between leadership self-efficacy (*Ready*), motivation to lead (*Willing*), and leadership skill (*Able*). It suggests that each capacity contributes to the other two. If any one of the constructs are missing or significantly lower than the others, "leaders may fail to exhibit behaviors necessary for success" (Keating, et al, 2014, p. 4). We utilize the RWA model to compare international students to domestic students regarding their pre-experience characteristics and overall growth from participating in leadership programs.

Purpose of Study

The purpose of this research study was to examine the differences in leadership capacity between international students and their domestic peers, both before and after participating in a short-term leadership program, as well as determine the incoming factors between the two groups that predict growth in leadership skill. Building upon the foundation of previous research, we examined an international student population's leadership development within programs that heavily promote inclusivity, collaboration, confidence building, and campus engagement in the context of leadership capacity-building. Understanding how international students grow within these programs and comparing growth to domestic students may give scholars additional tools to recognize the pathways international students take to engage in extracurricular developmental opportunities and may influence practitioners' actions in program development.

Research Questions

1. How do international students' pre-experience self-reported measures of leadership self-efficacy, motivation to lead, and leadership skills change as a result of participation in a co-curricular leadership program?
2. To what extent do international students' gains after participating in leadership programs differ from domestic peers?
3. To what extent do students' gains in motivation to lead and leadership self-efficacy predict an increase in leadership skill after attending leadership programs and are there differences exist between international and domestic students in these factors?

Method

Population and Context. This research was conducted at a large doctoral-granting campus with very high research activity situated in the list of top five institutions regarding number of enrolled international students (IIE, 2013), and which houses a sizeable leadership education center that hosts open-access programs that include over 1,000 students per year who voluntarily register to participate (Office Website, 2014). Each co-curricular program lasts between seven and nine hours, occurs on weekends, and is open to any student who wishes to participate, space allowing. Curriculum within the center's programs was designed to support the development of individual leadership skills (e.g. self-management), interpersonal relationship and organizational skills relevant for leadership success (e.g. communication skills), multicultural competence, and skills for engaging within the broader campus and community (Office Website, 2014). Each program was pedagogically designed to enable learning in large part through small group facilitation and interactions, where each small group (6-10 students) was constructed through random selection. In addition, program staff might slightly rearrange groups to ensure broad diversity of members, including ensuring that international students are able to interact with their domestic peers. The goal of small group assignments was to create an environment where multiple viewpoints were included and encourage students to interact with others whom they may not typically encounter on campus. From 2012-2014, 1,826 students participated in at least one program, of which 35.4% ($n=646$) self-identified as an international student.

Sample. Data was collected via survey from 2012-2014. Student program participants were invited to complete a pre-experience survey when they registered for their first program, typically 2-6 weeks prior to attending, and a post-experience survey at the end of the day-long program. Our sample consisted of 188 students who had completed both a pre and post-experience survey. The domestic students comprised 64% ($n = 121$) of our sample, primarily identifying as female (68%, $n = 81$) and Caucasian (56%, $n = 67$). The racial makeup of non-Caucasian students was as follows: (1) Asian American (18%, $n = 21$); (2) Latino(a), (56%, $n = 20$); and (3) African American (10%, $n = 10$). The level in university for this group was: (1) Freshman (25%, $n = 30$), Sophomore (30%, $n = 36$), Junior (17%, $n = 21$), Senior (17%, $n = 20$), Graduate Student (2%, $n = 2$) and Unknown (10%, $n = 12$).

The International student group comprised 34% ($n = 67$) of our sample, 61% ($n = 41$) of which were female. The sample comprised of many Chinese international students (49%, $n = 33$) and included other nations of origin such as India (6%, $n = 4$) and Taiwan (1%, $n = 1$). The

remainder (44%, $n=30$) declined to report their country of origin. The class year distribution of within the international sample was: (1) Freshman (29%, $n = 19$), Sophomore (18%, $n = 12$), Junior (9%, $n = 6$), Senior (10%, $n = 7$), Graduate Student (15%, $n = 10$), and Unknown (19%, $n = 13$).

Instrumentation.

Leadership Skill. To measure leadership skill we used 27 items from the transformational and transactional scales found within the Transformational Behavior Scale (TBS) (Podsakoff, MacKenzie, Moorman, & Fetter, 1990). The TBS is designed to measure behaviors that align with either transformational or transactional behaviors; this survey is one of the more popular tools to measure transformational and transactional leadership behaviors (Yukl, 2010). Within the subscale that measures transformational leadership skill, a sample item was, “When I lead a group, I show what is expected to group members.” An item measuring transactional leadership skill was, “I commend other group member for doing a better than average job.” Previous research on university students has found internal reliability to be strong on the transformational leadership scale (.87) and acceptable for the transactional leadership scale (.63) (Rosch & Collier, 2013).

Leadership Self-Efficacy. To measure LSE we used the Self-Efficacy for Leadership Scale (SEL) (Murphy, 1992), an 8-item scale that measures a person’s self-perception and confidence to engage in leadership behaviors. The SEL measures a person’s sense of self-confidence and assuredness when engaging in leadership actions and behaviors (Murphy & Fiedler, 1992). A sample item from the SEL scale was, “In general, I’m not very good at leading a group of my peers.” Internal reliability in past studies of college students has been good, measured at .82 (Rosch, Collier, & Zehr, 2014).

Leadership Motivation. Next, to measure MTL we use the Motivation to Lead (MTL) scale (Chan & Drasgow, 2001), which includes 27 items divided equally across subscales assessing Affective Identity (AI), Social Normative (SN), and Non-Calculative (NC). A sample item of AI MTL subscale was, “I am the type of person who likes to be in charge of others,” an item measuring SN MTL, “I was taught to believe in the value of leading others,” and, finally, a sample NC MTL item was, “I never expect to get more privileges if I agree to lead a group.” Internal reliability for these sub-scales has been acceptable ranging from .65 to .91 (Chan & Drasgow, 2001).

Leadership Development Frequency. Finally, via five-point Likert scale ranging from Never to Always, the instrument also collected the self-reported participation in leadership programs and classes – a variable we label *Leadership Development Frequency*.

Data Analysis. To determine differences in incoming and post-program leadership capacity between domestic and international students, we performed independent samples t-tests using pre-experience and then post-experience scores. To focus specifically on differences in

growth, we created a “gain” score by subtracting post-experience scores from their corresponding pre-experience, and conducted a separate independent sample t-test on these to determine differences across the two student groups. Finally, we performed a two regression analyses to examine how powerfully students’ gains in leadership self-efficacy and varying forms of motivation predicted gains in their transformational skill, one for international students and one for domestic peers.

Results

Table 1 illustrates pre-experience scores for both international and domestic students. In several areas, international students reported scores lower than domestic peers. Independent sample t-tests indicated significant difference in Affective Identity MTL between international students and domestic students. Additionally, differences exist between international and domestic students in Social Normative MTL. The final pre-experience score differences between international and domestic students was found in Transformational Leadership skill. No significant differences emerged in Non-Calculative MTL, Leadership Self-Efficacy, and Transactional skill.

Table 1. *Pre-Experience Differences between International and Domestic Students*

Pre-Experience Self-Reported Scores Scale	International			Domestic			Unpaired T-Test		
	n	μ	σ	n	μ	σ	t	df	p
AI MTL	67	3.34	.614	121	3.55	.564	2.37	186	.019*
NC MTL	67	3.73	.467	121	3.71	.508	-.276	186	.783
SN MTL	67	3.29	.431	121	3.54	.451	3.72	186	.000*
LSE	67	3.80	.564	121	3.79	.643	-.044	186	.965
Transactional Skill	67	4.06	.600	121	4.15	.621	.947	186	.345
Transformational Skill	67	3.72	.442	121	3.87	.438	2.24	186	.026*

Post-experience data reveals significant differences between international and domestic students in Affective Identify MTL. Differences also remain between international and domestic students in Social Normative MTL. And finally differences emerged between international and domestic students in Transactional Leadership skill. No significant differences were found in Non-Calculative MTL, Leadership Self-Efficacy, and Transformational Leadership skill. See Table 2.

Table 2. *Post-Experience Differences between International and Domestic Students*

Scores Scale	International			Domestic			Unpaired T-Test		
	n	μ	Σ	n	μ	σ	t	df	p
AI MTL	67	3.34	.634	121	3.57	.704	2.19	186	.030*
NC MTL	67	3.74	.467	121	3.64	.496	- 1.30	186	.199
SN MTL	67	3.70	.556	121	4.01	.623	3.30	186	.001*
LSE	67	3.77	.633	121	3.79	.588	- .147	186	.884
Transactional Skill	67	4.00	.546	121	4.23	.635	2.56	186	.011*
Transformational Skill	67	3.85	.450	121	3.98	.512	1.75	186	.082

We also performed independent sample t-tests exploring differences in self-reported gains. When testing these differences, we found that none of the scales were significantly different, suggesting that both international and domestic students reported similar gains in each of the scales, despite lower scores overall among the international student sample. See Table 3.

Table 3. *Differences in Leadership Gains between International and Domestic Students*

Gain Scores Variable	International			Domestic			Unpaired T-Test		
	n	μ	σ	n	μ	σ	T	df	p
AI MTL	67	.002	.526	121	.019	.560	.210	186	.834
NC MTL	67	.006	.672	121	-.069	.730	-.691	186	.491
SN MTL	67	.413	.535	121	.464	.541	.614	186	.540
LSE	67	-.016	.785	121	-.026	.475	-.075	186	.940
Transactional Skill	67	-.065	.656	121	.083	.673	1.45	186	.148
Transformational Skill	67	.136	.466	121	.117	.560	-.240	186	.810

We then performed a multiple regression analysis to examine how gains in students' leadership self-efficacy and varying forms of motivation predicted students' post-experience transformational skill. For domestic students, the more often they reported to engage with leadership development programs (Leadership Development Frequency, $p = .018$) held a significant but mild effect on the final score. Also found, gains in Affective-Identity MTL ($p = .008$) and Social-Normative MTL ($p = .000$) influenced domestic students' post-experience Transformational Leadership skill score. For international students, the only significant predictor was gains in Social-Normative MTL ($p = .006$). Within both groups, no effects emerged associated with gender or year in school. View Table 4 for the full regression models.

Table 4. *Predictors of Transformational Leadership Post-Experience Score*

	Variables	B	Std. Error	B	T	P
Domestic Student	Constant	3.63	.152		23.8	.000
	Gender	-.050	.076	-.047	-.656	.513
	Year in College	.019	.014	.096	1.35	.179
	Leadership Development	.068	.027	.177	2.46	.015*
	AI-Gain	.209	.080	.203	2.61	.010*
	SN-Gain	.474	.073	.501	6.47	.000*
	NC-Gain	.023	.063	.032	.356	.722
	LSE-Gain	-.057	.052	-.097	-1.08	.282
Internat'l Student	Constant	3.43	.206		16.7	.000
	Gender	.128	.108	.139	1.78	.244
	Year in College	.026	.024	.138	1.08	.284
	Leadership Development	.042	.049	.107	.848	.400
	AI-Gain	.116	.105	.136	1.10	.275
	SN-Gain	.271	.105	.320	2.59	.012*
	NC-Gain	-.077	.096	-.115	-.802	.426
	LSE-Gain	.012	.080	.021	.148	.883

Discussion

This study revealed notable results related to leadership capacity differences between international students and their domestic peers, and the differing effects associated with co-curricular leadership program participation. Compared to domestic peers, while international students report lower pre and post-experience scores across most areas of leadership capacity, they reported similar degrees of growth by the conclusion of the program. However, important differences emerged regarding the reported motivational and confidence gains associated with the experience that predict gains in skill.

These results suggest that international students lag behind domestic students in motivation to lead stemming from an image of themselves as a leader among peers as well as from feeling a sense of responsibility to lead from groups to which they belong. Moreover, gaps emerged between the two groups in their report of transformational leadership skill. However, no gaps emerged related incoming levels of leadership self-efficacy, non-calculative motivation to lead, and transactional leadership skill, suggesting that both groups arrive at co-curricular programs with similar levels of leadership capacity in these areas.

The post-experience scores indicate several differences between the groups of students persist through program participation, including motivation to lead stemming from a leader self-image as well as from a felt responsibility to one's peers. In addition, differences emerged related to transactional leadership skill between the groups. Whereas in pre-experience measures this score was similar, post-experience domestic students' score emerged as significantly higher.

Significantly lower pre-experience scores could stem from the various socio-cultural challenges that affect international students' self-assurance (Lee & Rice, 2007), such as their relative lack of engagement in campus activities (Trice, 2004) and positive interactions with domestic populations (Poyrazli & Grahame, 2007). Given incoming gaps, lower post-experience scores would be expected to follow. These findings indicate that international students may need more support, guidance, and opportunities to overcome challenges not generally faced by domestic students before an expectation of equality in self-reported leadership capacity should exist.

Although international students reported lower levels of leadership capacity than domestic students, the growth they report over the course of their experience may hold some critical implications. Gains in affective identity motivation have been correlated towards finding more opportunities to further develop and practice leadership skills, non-calculative motivation to lead have been linked to the development of shared values with peers, while increases the social normative motivation to lead has been correlated with increased conscientiousness and agreeableness (Chan and Drasgow, 2001). These results suggest that leadership education may be a viable tool for providing a foundation that could accelerate students' movement towards sociocultural acceptance when paired with educational tools in which to build these skills. Fundamentally, gains in motivation and confidence could indicate that co-curricular leadership programs that include aspects of relationship-building and a values-based curriculum might help both international and domestic students gain the type training that Watt, et al. (2013) suggests is needed to appropriately manage multiple cultural viewpoints and create environments in which both students may more deeply, collaboratively engage with each other.

Even though international students generally started and finished with lower reported capacity than domestic students, their gains were generally similar. These similar gains illustrate promise for leadership education programs as this may indicate a lack of cultural bias, where international students generally feel comparably comfortable in the learning space. This may be significant, as much of the literature on international student development link international students' lower developmental outcomes with lower levels of comfort (i.e. Hu & Kuh, 2003; Greenblatt, 2005; Cho, 2009). While our data suggests a lack of cultural bias and increased comfort, these results should be considered only exploratory. Future research could help develop stronger conclusions.

Finally, aligned with recent research (Rosch, Collier, & Thompson, 2015), our results reinforce the notion that the pathway toward increasing leadership skill is not uniform for all groups of students. When examining the personal factors that predict gains in leadership skill, our findings suggest that domestic students' pathway towards being an effective transformational leader is through encouraging continued engagement with leadership development programs, and by focusing on developing affective-identity and social-normative motivations to lead. For international students in our sample, focusing on social-normative motivation - elevating the motivation to lead stemming from a feeling of responsibility to their group is found to significantly influence post-experience transformational leadership scores. Moreover, this factor was the only leadership-oriented variable that emerged as a statistically significant predictor. This suggests that helping international students feel more embedded on the campus and engaged with their peers have multiple benefits. As leadership education continues to grow in higher

education, these nuances must be considered, and specialized leadership opportunities for various groups need advanced development. As a primary goal of many leadership education programs is to develop effective transformational leaders, more emphasis must be placed on how groups of people come to be more effective transformational leaders.

Limitations and Future Research

As with all studies, this research has limitations. First, this research was conducted at a public, research intensive university with a large international student enrollment and a long established leadership education center. Whereas, Cantwell (2015) suggests this is the very type of university that is most active and sees the most monetary generation from international student enrollment, this research may only benefit other similar institutions and may not be generalizable to others in different categories, such as bachelors granting private institutions. This research is a first step towards exploring the benefits of leadership education programs for international students. As such, there is much work to be done so as to expand this line. Future research should include a more representative sample of international students, as the experiences of these students on campuses where they serve as a smaller statistical minority may vary from our sample. Additionally, a larger sample would allow for more sophisticated statistical analysis, especially when examining the pathways to leadership development that students traverse over time. Moreover, not all leadership education programs are created equal (Dugan, 2011). Many universities will not have leadership education programs as well established as the institution included within this study. Research on less established and institutionalized programs may also yield different results and noteworthy findings. Next, this research could also be expanded to for-credit leadership courses, less intense workshops, and or more immersive programs – such as LeaderShape. Finally, the current study did not focus on students' felt level of comfort within their educational experience, which may serve as an important mediating variable affecting our results. Future research should be conducted that focus on this potentially significant factor, and how international students differ from their domestic peers.

Recommendations

The findings generally suggest that international students demonstrated measured growth in leadership capacity is equal to domestic peers. One implication this research holds is that leadership education programs could be used as a portal for institutions to help international students become a more embedded part of the campus community. Since ISS units have generally been found to focus more on administrative regulation and business functions over cultural and social activities for international students (Collier & Hernandez, 2015; Ward, 2015), creating connections between these units and those that provide broad-based leadership education programs open to all students may help to support international students in a variety of ways. Effectively, ISS units could collaborate to help ease their dual purpose responsibility.

While tighter partnerships between ISS units and leadership education units could be extraordinarily beneficial, closer connections with leadership education units may be necessary to help decrease the leadership-oriented disparities between international and domestic students. Until this gap lessens, international students may never reap the same benefits generally attained by domestic students.

Possibly, specialized workshops aimed to support international students' growth before they engage in the program may help boost pre-experience gains. The workshops could be divided along the three constructs of the Ready, Willing, and Able Model where students explore their motivations to lead and its sources, provide a foundation of confidence in leading, and come to better understand the skills associated to being an effective leader in contemporary, relationship-oriented organizations. Our results reinforce emerging findings that the pathways to student leadership development across groups of students are as diverse as the groups themselves. While a one size fits all approach may streamline curricula, the data presented here suggests that leadership education may need more nuanced approaches.

Conclusion

The marriage between international students and leadership education appears to hold the potential for many positive outcomes. Our findings provide preliminary evidence that international students are interested in engaging in co-curricular leadership education programs and that these programs aid them in gaining increased confidence in leading and a greater commitment to leading groups in which they are associated. Because of how leadership education has been reimaged in the new millennium and implemented across higher education, these programs could be used to help international students become more culturally and socially secure as they work toward earning degrees within the U.S. As ISS units struggle to manage their dual purposes, leadership education programs can be used to help shore up social and cultural processes often less focused on. Ownership of the mission to support international students should be dispersed across the campus; strategic partnerships between ISS and leadership education units can increase the institutional commitment in facilitating these transitions.

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