

Factors Effecting Undergraduate Leadership Behaviors

Margie Lee Gallagher, PhD (Corresponding author)

East Carolina University,
RW245 Rivers Building, Mail Stop 505, Greenville, NC 27858
Email: gallagherm@ecu.edu
Phone: 252-328-1095, 252-328-1098

Jeffrey C. Marshall, EdD

Morehead State University, The Center for Regional Engagement
320 University Street; UPO Box 1261, Morehead, KY 40351.1689
Email: j.marshall@moreheadstate.edu
Phone: 606.783.9327 (O), 606.207.7826(Cell)

Mary Lisa Pories, MSW, LCSW

East Carolina University,
RW237 Rivers Building, Mail Stop 505, Greenville, NC 27858
Email: poriesm@ecu.edu
Phone: 252-328-5547, 252-328-1098

Morgan Daughety, EdD

Wilson Community College,
P.O. Box 4305 . 902 Herring Avenue , Wilson, NC 27893
Email: mdaughety@wilsoncc.edu
Phone: (252) 246-1309

Abstract

Leadership behaviors of undergraduates (n=1103) were examined using the Student Leadership Practice Inventory (SLPI). The practice of leadership behaviors increased significantly from freshman to juniors and from juniors to seniors. However, each class was significantly less likely to practice the Challenge the Process behavior and significantly more likely to practice the Enable Others to Act behavior. Experience with different types of leadership roles were related to higher SLPI practice scores. Age, race, transfer status and taking a freshman experience seminar did not influence SLPI scores or the number of different types of leadership roles. Unexpectedly, women had significantly higher SLPI scores than men at each class level.

Introduction

Astin and Astin (2000) suggest that many social issues in modern American society are related to concerns with leadership. Indeed it is the consensus in both scholarly and popular literature that the recent decline in civic engagement is related to a developing leadership gap as the United States transitions from an industrial economy to a knowledge-based economy (Astin & Astin, 2000; Greenleaf, 1978, 2003; Friedman, 2006; Kouzes & Posner, 2006; Marshall, 2008). Institutions of higher education are ideal settings for training leaders. Recent research has shown (Hu, 2011) that both intentional leadership training opportunities in the undergraduate curriculum as well as community engagement experiences can positively influence leadership qualities. In addition activities associated with campus life and extra-curricular activities also foster leadership skills. The goal of this study was to assess the leadership practices of college students at different class levels and to investigate demographic and experiential factors that affect leadership practices as measured using the Student Leadership Practice Inventory (SLPI) tool.

The SLPI was chosen for this study because it is a well established tool which was developed and validated for college students and has found to be robust across a variety of collegiate student populations and, therefore, highly suited for our study population (Posner, 2004). The SLPI measures five practices of leadership as defined by Kouzes and Posner (2007, 2006). In addition, the SLPI model developed by these authors is closely aligned with the ideals of transformational leadership. Transformational leadership changes both the leader and followers and moves toward a shared vision. The model of transformational leadership is ideal for educational institutions such as universities since it fits well with the ideals and goals associated with growth and improvement within academic institutions (Harrison, 2011; Wang and Berger, 2010).

The five practices measured using the SLPI are defined in behavioral terms seen as those that leaders use when they lead: Model the Way, Inspire a Shared Vision, Challenge the Process, Enable Others to Act, and Encourage the Heart.

Modeling the Way recognizes that leaders model the behavior they expect (lead by example) and that the behavior is based upon personally held values and beliefs (i.e. what they say is what they do).

Inspiring a Shared Vision requires that the leader be forward thinking and be able to gather colleagues into a collaborative vision of the future.

Challenging the Process makes the assumption that leaders are of necessity advocates for change, willing to take risks, seek opportunities to be innovative and recognizes good ideas from various sources.

Enabling Others to Act is key to the concept of transformational change. The leader must build inclusive teams, strengthen others and share power.

Finally, leaders must uplift and Encourage the Hearts of others. They need to take pride in the contributions of others and celebrate the success of the work toward the common vision.

Method

The SLPI (Kouzes and Posner, 2006) and a short status survey was administered to 1103 undergraduate students who were recruited from freshman, junior, and senior classes at a mid-size, southern university through a broad range of courses across the university where instructors agreed to give the survey. Freshman and seniors were targeted to allow comparison of leadership practices between new students and those about to graduate. Juniors were also included to capture a group of transfer students. The status survey requested class level, transfer status, race, gender, age, whether or not the student had taken the on campus voluntary freshman seminar which included student life and leadership information, and the number of different types of organizations in which the student had had leadership experiences (Table 1).

Table 1

Types of leadership experiences survey

- | |
|--|
| <p>___ I was an officer in one or more student organizations in high school.</p> <p>___ I was a leader in a youth organization in my church, synagogue, or mosque.</p> <p>___ I was/am an officer in a community civic organization.</p> <p>___ I currently, or have in the past, held a leadership role in a college student organization.</p> <p>___ I am currently or have been an officer/leader in a Greek-letter social organization.</p> <p>___ I am currently or have been an officer/leader in a Greek-letter service organization.</p> <p>___ I have received formal leadership training or have taken courses in leadership for credit.</p> |
|--|

All surveys were anonymous and students were under no obligation to participate. The study protocol was approved by the University Institutional Review Board.

SLPI scores for each leadership practice were calculated by adding the score for each of the questions related to the specific practice as per Kouzes and Posner (2006). A leadership experience score was obtained by adding the number of different types of organizations in which the student had reported leadership experiences. The highest score possible was seven.

Data for each participant was coded and recorded into an Excel spreadsheet and subsequently imported into an SPSS (IBM SPSS Statistics 19) data base for statistical analysis. One way analysis of variance, t-tests and correlations were used to evaluate the data. We hypothesized that class level and/or the number of different types of organizations in which the students reported leadership experiences would influence SLPI leadership scores in college students.

Results and Discussion

Of the total (n=1103) student participants 69.1 % (n=762) were female and 30.4% (n=335) were male. Students participating in the study ranged in age from 17-66 with a mean age of 22. A large percentage (80.5%, n= 888) of the students sampled reported their race as white, 10.9 % (n=120) reported themselves as African American, 1.9% (n=21) reported as Hispanic/Latino, and 4.9% (n=61) recorded other for race.

Mean scores for each of the leadership practices were within the ranges reported by Posner (2009, 2004). Overall (Table 2) mean scores for each leadership practice increased significantly at each class level indicating that seniors used more leadership practices than juniors or freshman and likewise juniors used significantly more leadership practices than freshmen. There were also significant differences among mean scores for each practice which persisted at each class level. For example, students' scores for Enable Others to Act were significantly higher than all others at all class levels. This result is a typical result for the SLPI (Kouzes & Posner, 2008). However, even though all scores increased from the freshman to senior level at all class levels, students reported significantly less ($p \leq 0.02$) use of the Challenge the Process practice. Results for Challenge the Process are supported by Adams and Keim (2000) who found that students reported that this practice was the one that needed the most development.

Table 2

Mean¹ ($\pm$ standard deviation) SLPI scores in key leadership indicators of freshman, juniors and seniors.

Characteristic	Freshman (n=524)	Juniors (n=156)	Seniors (n=423)
Model the Way	20.70 ^{aw} $\pm$ 3.67	22.61 ^{bw} $\pm$ 3.33	23.83 ^{cw} $\pm$ 3.77
Inspire a Shared Vision	20.34 ^{aw} $\pm$ 4.18	22.58 ^{bw} $\pm$ 3.72	23.38 ^{cwx} $\pm$ 4.31
Challenge the Process	19.82 ^{ax} $\pm$ 4.09	21.71 ^{bx} $\pm$ 3.51	23.13 ^{cx} $\pm$ 4.38
Enable Others to Act	23.05 ^{az} $\pm$ 3.35	24.49 ^{bz} $\pm$ 3.00	25.39 ^{cz} $\pm$ 3.10
Encourage the Heart	22.51 ^{ay} $\pm$ 4.03	23.57 ^{by} $\pm$ 3.75	24.68 ^{cy} $\pm$ 4.13

¹Means followed by a different letters^{abc} across rows are significantly different from one another at $p < 0.000$. Means followed by different letters^{wxyz} down columns are significantly different from one another at $p < 0.000$.

These results indicate that students may not be as likely to take risks or seek opportunities.

Since entrepreneurship and innovation are often a strategic goal in American universities, institutions may want to seek ways to train social as well as business entrepreneurs, to encourage students take risks and learn from failure (Donahue, 2010).

More than 60 % of all students in each class had had some organization leadership experience and mean organization leadership experience scores were not significantly different from one another with respect to class ($p > 0.05$). However, organization leadership experience scores were significantly correlated ($p \leq 0.05$) to all SLPI leadership practice scores with the exception of Enable Others to Act for juniors ($p = 0.323$) and seniors ($p = 0.335$). In addition, the number of different organizational leadership experiences significantly influenced most SLPI scores (Table 3).

Table 3

Comparison of mean¹ ($\pm$ standard deviation) SLPI scores in key leadership indicators and the number of different types of organization leadership experiences

Characteristic	Number of different types of organization experiences				
	0 (n= 315)	1 (n= 303)	2 (n=288)	3 (n= 133)	≥ 4 (n= 64)
Model the Way	21.04 ^a (0.25)	22.14 ^b (0.23)	22.48 ^b (0.20)	23.31 ^c (0.28)	24.09 ^c (3.30)
Inspire a Shared Vision	20.31 ^a (0.28)	21.57 ^b (0.25)	22.39 ^c (0.22)	23.41 ^d (0.32)	24.62 ^d (3.53)
Challenge the Process	20.21 ^a (0.28)	20.96 ^b (0.25)	21.81 ^c (0.22)	22.78 ^d (0.34)	23.81 ^d (3.82)
Enable Others to Act	23.79 ^a (0.21)	24.05 ^{ab} (0.20)	24.22 ^{ab} (0.18)	24.56 ^{bc} (0.26)	25.30 ^c (2.96)
Encourage the Heart	22.33 ^a (0.25)	23.41 ^b (0.24)	23.91 ^{bc} (0.22)	24.55 ^{cd} (0.31)	25.50 ^d (3.44)

¹Means followed by different letters^{abc} across rows are significantly different from one another at $p < 0.000$.

Those individuals with no organizational leadership experience had significantly lower scores than those with at least one type of organizational leadership experience with the exception of the Enabling Others to Act practice. In addition, students with three or more different types of organizational leadership experience scored significantly higher on all SLPI practice indicators than those with only one or two experiences, again with the exception of Enabling Others to Act. When the same comparisons were made by class, the effect of different types of organization experiences persisted for each practice for freshman and juniors ($p \leq 0.05$) but differences

disappeared for seniors. This result indicates that as noted by Hu (2011) other activities associated with campus life may be influential in SLPI scores by the senior year.

Although there were no significant differences between the mean number of types of organization leadership experiences for women (Mean= 1.47 (1.24) and men (Mean= 1.29 (1.26), there were significant differences between male and female mean SLPI scores at the freshman and senior class levels (Table 4).

Table 4

Mean¹ ($\pm$ standard deviation) SLPI scores in key leadership indicators of male and female freshman, juniors and seniors.

Characteristic	Freshman (n=524) ²		Juniors (n=156)		Seniors (n=423)	
	Men (n=206)	Women (n=317)	Men (36)	Women (n=118)	Men (93)	Women (327)
Model the Way	20.10 ^{ax} (3.79)	21.08 ^{bx} (3.54)	22.06 ^a (3.88)	22.81 ^{ay} (3.16)	22.62 ^a (3.68)	24.16 ^{bz} (3.74)
Inspire a Shared Vision	19.75 ^{ax} (4.30)	20.72 ^{bx} (4.07)	21.75 ^{ay} (4.79)	22.89 ^{ay} (3.29)	21.95 ^{ay} (4.24)	23.79 ^{bz} (4.25)
Challenge the Process	19.67 ^{ax} (4.33)	19.90 ^{ax} (3.92)	21.25 ^{ay} (4.15)	21.90 ^{ay} (3.31)	22.35 ^{ay} (4.26)	23.37 ^{bz} (4.38)
Enable Others to Act	22.44 ^{ax} (3.51)	23.45 ^{bx} (3.18)	23.86 ^{ay} (3.27)	24.65 ^{ay} (2.92)	24.48 ^{ay} (3.06)	25.65 ^{bz} (3.08)
Encourage the Heart	21.80 ^{ax} (4.02)	22.96 ^{bx} (3.98)	22.63 ^{ay} (4.20)	23.90 ^{ay} (3.56)	23.09 ^{ay} (4.34)	25.13 ^{bz} (3.94)

¹Means followed by different letters^{ab} across rows indicate significant differences ($p < 0.000$) between women and men within class while means followed by different letters^{xyz} across rows indicate significant differences ($p < 0.000$) among classes separated into males and females.

²Values for n in selected groups may not equal the total n due to lack of participant identification in group.

When mean practice scores of male and female participants' data were compared separately for men and women at each class level, the significant increase in scores at each class level persisted for women at all levels and all practices. Scores for junior and senior men were significantly higher than freshman for all practices, but, unlike women, there were no significant differences in scores between junior and senior men. These differences in scores for leadership practices between men and women were not expected with this instrument. Although early on Posner and Kouzes (1993) noted that women scored higher on two aspects of SLPI leadership practices

(Modeling the Way and Encouraging the Heart), Posner (2004) later reported no gender differences among effective student leaders or college students generally. In addition, Posner (2009) did not find gender differences when studying leadership practices in senior students who had participated in a leadership program in their freshman year, although there were significant increases in leadership practices among seniors who had received the leadership program. However, Adams and Keim (2000) reported that women scored significantly higher than men in Challenge the Process practices. Poulson, Smith, Hood, Arthur and Bazemore (2011) have also reported that female students rated the characteristics of transformational leadership in their instructors higher than male students. The researchers further suggested that women may be more accepting of a leadership style that is inclusive of women. Women have been shown to score significantly higher than men when a social change model of leadership is used (Dugan, 2006). Recently Haber (2012) reported that incoming freshman women ($n=1000$) demonstrated a more contemporary inclusive view of leadership. Wielhiewicz et al (2012) also showed that incoming freshman women tended to look at leadership as a systemic process while men held hierarchical views ($n=4,292$). These findings are consistent with the leadership behaviors found in the present study.

There were no significant differences ($p \geq 0.224$) in mean SLPI practice scores or number of different types of organizations in which the student reported leadership experiences due to age or race, at least for those types of organizations noted in the survey. This finding is supported by Posner (2004) and others who did not find differences with in leadership practices with respect to age or race. There were also no significant differences in SLPI scores of juniors ($P \geq 0.189$) or seniors ($P \geq 0.181$) with respect to whether or not the student had taken the freshman experience seminar, suggesting that the leadership component in the specific freshman experience course in this study was not strong. Another explanation is that as noted by Posner (2009) one time leadership exposure may not change leadership practices.

There were no significant differences ($p > 0.05$) in mean number of different types of organization leadership experiences between students who had transferred to the university ($n=252$) as opposed to those who had begun as freshman at the university ($n=836$). There were also no significant differences in SLPI scores between transfer students and resident students at the junior ($p \geq 0.174$) or senior ($p \geq 0.225$) level with the exception of scores for Encourage the Heart where those students who began as freshmen scored significantly higher ($p = 0.009$) than transfer students. Why this result was obtained is unclear, but may be related to the student culture itself. However, junior students were the smallest group sampled and caution should be used in interpreting this finding.

Conclusions

Several conclusions can be made regarding the students participating in this study. First, this study confirms others that have shown no significant effect of age or race on leadership practices of students. However, it does show that both class level and the number of different types of organizations where leadership experiences (leadership score) were gained affect leadership practices. The effects appear to be independent of one another, since SLPI scores increased significantly as leadership experience scores increased. But, SLPI scores also increased significantly as class level increased, although there were no significant differences among overall class leadership experience scores.

Unlike other studies, women scored significantly higher than men at each class level in spite of there being no significant differences in the number of organizational leadership experiences, supporting the idea that, at least in this population, women may be more comfortable with the practices of transformational leadership than men as has been suggested by others. These results imply when developing leadership development programs it is important to take into consideration the gender of the students or trainees since men and women appear to have different comfort levels with specific practices.

Not all leadership practices were used to the same degree. Since students generally used Challenge the Process significantly less than all other practices, indicating a lower inclination to take risks. Further research is necessary to determine if there is an overall decrease in the practice of challenging processes in college students, especially freshman. If so, leadership development programs will need to consider programs and courses which seek ways to encourage risk taking and its consequences in order to foster innovation and entrepreneurship. Perhaps most encouraging in this general student population is that student scores increased in all leadership practices at each class level indicating that the longer a student is in a university environment the more leadership skills are acquired. These result should encourage universities to take stock not only of teaching of leadership but also of its own practices in leadership, since as noted by Wang and Berger (2010), there is a growing gap between leadership theory and practice in higher education which is likely to influence all university constituencies.

References

- Adams, T. C., & Keim, M. C. (2000). Leadership practices and effectiveness among Greek student leaders. *College Student Journal*, 34 (2), 259-271. Retrieved from <http://www.accessmylibrary.com/archive/1917-college-student-journal.html>
- Astin, A. W., & Astin, H. S. (2000). *Leadership reconsidered: Engaging Higher Education in Social Change*. Battle Creek, MI: W.K. Kellogg Foundation.
- Donahue, F. (2010). Risky business: Training future entrepreneurs. *The Times Educational Supplement*, 4919, 6-7. Retrieved from <http://www.tes.co.uk/article.aspx?storycode=6064886>
- Dugan, J. P. (2006). Explorations using the social change model: Leadership development among college men and women. *Journal of College Student Development*, 47(2) 217–225. doi:10.1353/csd.2006.0015
- Friedman, T. L. (2006). *The world is flat: A brief history of the twenty-first century*. New York: Farrar, Straus and Giroux.
- Greenleaf, R.K. (1978). *The leadership crisis*. Indianapolis, IN: Robert K. Greenleaf Center.
- Greenleaf, R. K. (2003). *The servant-leader within: A transformative path*. New York: Paulist Press.
- Haber, P. (2012). Perceptions of leadership: An examination of college student's understanding of concepts of leadership. *Journal of Leadership Education*, 17(2), 26-51.
- Harrison, L. M. (2011). Transformational leadership, [integrity, and power](#). *New Directions for Student Services*, 135, 45-52. doi: 10.1002/ss.403
- Hu, S. (2011). Scholarship awards, student engagement, and leadership capacity of high achieving low-income students of color. *Journal of Higher Education*, 82(5), 511-534. Retrieved from http://muse.jhu.edu/journals/journal_of_higher_education/
- Kouzes, J. M., & Posner, B. Z. (2008). *Leadership Challenge Workshop, Facilitator's Guide 3rd edition (revised)*. San Francisco: Wiley and Sons.
- Kouzes, J. M., & Posner, B. Z. (2007). *Leadership Challenge*. San Francisco: Wiley and Sons.
- Kouzes, J. M., & Posner, B. Z. (2006). *Student Leadership Practice Inventory: Student Workbook (2nd ed)*. San Francisco: Jossey-Bass, A Wiley Imprint.
- Marshall, J. C. (2008). *Servant leadership and service-learning: A model for teaching community engagement to undergraduate students*. (Unpublished doctoral dissertation). East Carolina University, Greenville, NC.
- Poulson, R. L., Smith, J.T., Hood, D. S., Arthur, C. G., & Bazemore, K. F. (2011). The impact of gender on preferences for transactional versus transformational professorial leadership styles:

an empirical analysis. *Review of Higher Education & Self- Learning*, 3(11), 58-70. Retrieved from <http://www.intellectbase.org/journals>.

Posner, B. Z. (2009). A longitudinal study examining changes in students' leadership behavior. *College Student Development*, 50(5), 551-563. doi: 10.1353/csd.0.0091

Posner, B. Z. (2004). A leadership development instrument for students: updated. *Journal of College Student Development*, 45(4), 443-455. doi:10.1353/csd.2004.0051

Posner, B.Z., & Kouzes, J. M. (1993). Psychometric properties of the Leadership Practices Inventory. *Educational & Psychological Measurement*, 53(1), 191-199. doi: 10.1177/0013164493053001021

Wang, V. C. X., & Berger, J. (2010). [Critical analysis of leadership needed in higher education](http://www.americanscholarspress.com/content/IFOTS-Two-2010.pdf#page=3). *International Forum of Teaching and Studies*, 6 (2), 3-12. Retrieved from <http://www.americanscholarspress.com/content/IFOTS-Two-2010.pdf#page=3>

Wielhiewicz, R. M., Fischer, D., Stelzner, S. P., Overland, M., & Sinner, A. M. (2012). Leadership attitudes and belief of incoming first-year college students: A multi-institutional study of gender differences. *Journal of Leadership Education*, 17(2), 1-25.

Author Biographies

Margie Lee Gallagher is a professor of Nutrition and Associate Dean for Research and Graduate studies in the College of Human Ecology at East Carolina University. Her research interests include methods of incorporation critical thinking skills in nutrition practices and development of transformation leadership skills at the undergraduate level.

Jeffrey C. Marshall, EdD is the Executive Director of The Center for Regional Engagement at Morehead State University in Kentucky. His interests include fostering community engagement, service learning as a transformative university experience.

Mary Lisa Pories, MSW, LCSW, is PhD student in Medical Family Therapy at East Carolina University and also serves as Director of grants and contracts in the College of Human Ecology.

Morgan Daughety, EdD is the Associate Dean for Arts and Sciences at Wilson Community College in North Carolina. His interests include student learning strategies, servant leadership and community engagement.

Authors Note

The authors wish to acknowledge the valuable support of the staff of the East Carolina University Center for Student Leadership and Engagement for its assistance in obtaining participants for this study. This study was funded in part by a challenge grant from the United States Department of Agriculture.