

Leadership Skills of Undergraduate Students at Hashemite University in Jordan

**Professor Aieman Ahmad AL-OMARI & MD. Ahmad Aieman Al-Omari & MD.
Ayham Aieman Al-Omari & MD. Rafeef Hamad Tammony & Mr. Malik
Aieman Al-Omari**

Leadership Skills of Undergraduate Students at Hashemite University in Jordan

Professor Aieman Ahmad AL-OMARI

The Hashemite University, Faculty of Educational Sciences, Dept. of Educational Foundations and Administration, Zarqa, Jordan
aieman66@hu.edu.jo

MD. Ahmad Aieman Al-Omari,
The Hashemite University, Zarqa, Jordan

MD. Ayham Aieman Al-Omari,
Jordan University of Sciences and Technology, Irbid, Jordan

MD. Rafeef Hamad Tammony
Jordan University of Sciences and Technology, Irbid, Jordan

Mr. Malik Aieman Al-Omari
Jordan University of Sciences and Technology, Irbid, Jordan

Received on 19th June 2023

Accepted on 1st

September 2023

Abstract: Undergraduate students recognize the importance of developing various skills during their time in college, including leadership, time management, reading, and public-speaking skills. In Jordanian universities, the Deanship of Student Affairs is responsible for caring for students' well-being on all levels, including physical, mental, social, and psychological. This includes organizing and overseeing social and cultural activities as well as establishing student associations and clubs. A study was conducted to investigate the leadership skills of undergraduate students and examine differences based on their sex, college, and membership in university clubs. The study utilized a descriptive method and the "S-LPI" instrument with five dimensions. 254 participants were selected from a population of all students enrolled in the Hashemite University during the first semester of 2022/2023. The results showed that participants reported moderate levels of leadership skills across all five dimensions. Male students had

significantly higher levels of leadership skills related to Enabling Others to Act compared to female students. There were no significant differences in leadership skills across students' colleges. However, members of university associations and clubs had significantly higher levels of leadership skills across all five dimensions than non-members. These findings may be useful for university administrators in designing student clubs and encouraging students to participate in them.

Keywords: Students leadership skills, leadership skills, public universities, the Hashemite University, Jordan.

Introduction

It's not a new idea to advocate for young people's leadership development. Youth leadership development organizations and programs have been operating for a long time. Participation in organized leadership programs (DeSimone, 2012; Anderson, Sabatelli, & Trachtenberg, 2007), sports (Chelladurai, 2011; Fraser-Thomas, Cote, & Deakin, 2007), faith-based and volunteer activities (Hansen, Larson, & Dworkin, 2003), youth-run community programs (Larson, Walker, & Pearce, 2005), extra-curricular activities (Hancock, Dyk, & Jones, 2012), camps (Henderson, Bialeschki, Scanlin, Thurber, Whitaker, & Marsh, 2007; Thurber, Scanlin, Scheuler, & Henderson, 2007), succeed in careers (Quinn, 2004), proposed a spectrum of student voice, participation and leadership that ranges from young people "speaking out" to "sharing decision-making and implementation of action" (Holdsworth, 2000), pyramid of student voice ranges from merely "being heard" to "building capacity for leadership" (Mitra, 2006) have all been linked to developing leadership skills of youth.

In these days, students are facing many career challenges, employment problems, and conflicts between idealism and beneficial. That's why they need leadership skills to accept challenges, solve problems and analyze career direction. Employers typically seek out candidates with a bachelor's degree and a diverse skill set (Aksoy, 1998). Many employers especially look for leadership abilities when hiring graduates (Kerka, 1990; Stronge, 1998; Santosus, 2003). Employers are typically more interested to students who are leaders (Van Linden & Fertman, 1998). According to the students themselves, college is the ideal time for developing a variety of abilities. Students listed reading skills, public speaking, and time management as essential college success skills (Gallagher, Golin, & Kelleher, 1992).

Gains in practical and interpersonal competence (Kuh, 1993), intellectual development (Baxter Magolda, 1992), and the emergence of altruism (Pascarella, Ethington, & Smart, 1988) have all been linked to participation in leadership activities and, consequently, to leadership development. Additionally, leadership development

initiatives have grown to play a significant role in student affairs divisions' overall goals for holistic student development (Arminio et al., 2000).

Research suggests that participation in student organizations may generally benefit students' overall academic experiences (Cooper et al., 1994). Early leadership experiences give people the skills they need to excel in school, the workplace, and other spheres of society (Kimbrough & Hutcheson, 1998). As they navigate adolescence, youth face many challenging issues that may be resolved by exercising effective leadership. Giving young people purposely planned, theoretically informed opportunities for leadership development could help them acquire the skills they need to deal with society's complicated problems in the future (Seemiller, 2018).

The Deanship of Student Affairs in Jordanian institutions looks after students' personalities on all levels, including physically, cognitively, socially, and psychologically. This helps to attain the principle of good citizenship by molding and developing the student's personality and preparing them to take an active role as a leader in the future, manages and plans all of the group's social and cultural events. It is also in responsible of creating student councils, groups, and clubs as well as supervising their activities. Public Service Association, Cultural Club, Political Department Club, Music and Singing Club, Cultural Traditions Club, Theater Club, Scientific Research Club, Plastic Art Club, and Special Needs Activity Club are just a few of the student organizations and clubs that the Deanship of Student Affairs established (The Hashemite University Web site, 2007). Research on leadership development and characteristics in higher education, according to Thompson (2013), has primarily shown that students who are not involved in leadership activities are rarely evaluated in terms of their leadership-related growth, viewpoints, or preferences.

The findings of numerous research seem to be in variance when it comes to men and women's leadership abilities. There is sometimes little evidence to indicate a connection between leadership and gender (Posner & Brodsky, 1994). These academics contend that research on leadership qualities and gender in general has not found any

differences in ability levels between men and women. The disparities between men's and women's leadership styles are not explained by gender (Bass, 1991; Komives, 1991).

However, other research show that women have more advanced skills. Women, even those with relatively limited total leadership experience, were shown to have well developed leadership skills. This included the capacity to empower others to take action (Komives, 1994). Women place a greater emphasis on developing relationships than do males. Females start picking up leadership abilities through trial and error, observation, and other practical methods. Women learn a variety of leadership skills, such as improved public speaking and interpersonal abilities, as well as an appreciation for the value of motivation and readiness. Women in leadership develop their ability to manage conflicts as well as their understanding of themselves (Romano, 1996).

In one study, both men and women discussed the variations in leadership styles between the sexes, giving examples of how males were more direct and got to the point while women preferred to think things through and engage in more conversation. One woman claimed that men were more likely to enforce rules, but women were more likely to engage with the inhabitants and form relationships (Arminio et. al., 2000). Variations by gender were discovered in Rehman and Farooq's (2017) study on the cognitive development and critical analysis abilities, whereas differences by course type were found in their study on the technology skills.

There is a large number of studies that shows there are no gender variations in leadership skills (Bass, 1991; Komives, 1991; Posner & Brodsky, 1994). There is a lot of literature supporting the use of different technologies (Litchman, 1998; Reinen & Plomp, 1997; Shashaani, 1997; Spotts, Bowman, & Mertz, 1997). However, other research (Komives, 1994) show that women have improved leadership abilities. More particular, Romano (1996) showed that women have been found to have higher degrees of interpersonal skills and problem-solving ability.

College leadership has also been extensively researched (Cooper et al., 1994; Cox & Miranda, 2003; Cress et al., 2001; Graham & Cockriel, 1997; Romero-Aldaz, 2001; Skeat, 2000; Turrentine, 2001). Cooperative learning, results revealed positive effects in

<http://dx.doi.org/10.29009/ijres.6.4.4>

developing students' leadership skills such as critical thinking, effective communication, decision making, and teamwork (Petre, 2020). Participation in student organizations has been linked to improved academic performance, according to studies (Cooper et. al., 1994). Leadership abilities have also been demonstrated in the areas of self-management, interpersonal communication, problem-solving, and cognitive development.

However, there hasn't been much research done to examine student leadership skills. This study filled a gap in the body of literature regarding the development of leadership skills in college students at the Hashemite University.

Research Question

This research aimed to investigate the leadership skills of undergraduate students at the Hashemite University, using The Student Leadership Practices Inventory (S-LPI) as a measure. The study sought to answer the following research questions:

1. What is the level of leadership skills among undergraduate students at the Hashemite University?
2. Do differences exist in the leadership skills level of undergraduate students at the Hashemite University based on their gender, college affiliation, and membership in university clubs?

Research Importance

This research has significant implications for future practice, research, and policy in higher education in Jordan. The findings provide valuable data to faculty members working with students, enabling them to design academic programs and services that promote leadership development, tailored to students' existing skillsets. The results also offer Student Affairs professionals a better understanding of the leadership skills possessed by students, allowing for an evaluation of the cocurricular leadership programs they oversee. Additionally, the results provide students with an awareness of the typical leadership skills they possess upon entering college, enabling them to evaluate their own skills and identify leadership education goals.

Methodology

Population and Sample

The research targeted all undergraduate students enrolled in a university elective course at the Hashemite University during the first semester of the academic year 2022/2023. The survey was completed by a sample of 254 students, consisting of 136 females and 118 males.

Instrumentation

The Student Leadership Practices Inventory (S-LPI) used in this study depends on (Kouzes and Posner, 1998; Kouzes & Posner, 2012) work that they developed the Leadership Practices Inventory, which comprises a set of statements describing various leadership actions and behaviors. Participants are asked to respond to each statement at S-LPI on a 4-point Likert scale, with 1 indicating "Strongly Disagree" and 4 indicating "Strongly Agree." This scale reflects how frequently a leader displays specific leadership practices, with a higher value indicating more frequent use of a leadership behavior.

The Student Leadership Practices Inventory (S-LPI) identifies specific behaviors and actions that students report using when they are at their "personal best as leaders" (Posner, 2004). The instrument includes thirty statements associated with five competency areas (Kouzes & Posner, 2012):

1. Challenging the process: Students search for challenging opportunities to grow and innovate, emphasizing the need for experimentation, risk-taking, and learning from mistakes.
2. Inspiring a shared vision: Students envision an uplifting and ennobling future as leaders, creating a common vision that appeals to values, interests, hopes, and dreams and serves as a cornerstone of future behavior.
3. Enabling others to act: Students promote cooperative goals and build trust, strengthening followers by providing choice and developing competence in critical tasks and objectives.

4. Modeling the way: Students set an example and exhibit behavior consistent with shared values of the group or organization, promoting consistent progress and building commitment from followers.
5. Encouraging the heart: Students recognize individual contributions through a leadership practice that "encourages the heart," regularly celebrating team accomplishments.

Data Collection

During the first semester of the academic year 2022/2023, the questionnaire was administered to students during regular class periods with the instructor's permission. The students received written instructions regarding the purpose of the study and the procedures to be followed in responding to the items. They were assured that there were no right or wrong answers. Upon completion, the students were instructed to return the survey to the class instructor, who then submitted it to the researchers. The questionnaire required approximately 20 minutes to complete.

Data Analysis Procedures

Data were analyzed using SPSS, v.23. First, the data were coded. Second, respondents were asked to report their university, sex, and college and university club membership, and then turned to the research questions posed in the study. Then calculated the mean scores for each item on each S-LPI dimensions for the first question. Next, conducted a series of independent t-tests to examine if there were significant differences in mean scores among groups on the scales. All t-tests were conducted at the $p=0.05$ level of significance.

Results

Question One: What is the level of leadership skills among undergraduate students at the Hashemite University?

Table 1 summarizes the results of descriptive statistics (Mean and Standard deviation) obtained in order to identify the leadership skills level of undergraduate students at the Hashemite University, which was the focus of the first research question.

Table 1. Leadership Skills level of undergraduate students at the Hashemite University

Dimension	M	SD	Level
Model the Way	2.11	.77	Moderate
Inspiring a Shared Vision	2.45	.75	Moderate
Challenges the Process	3.04	.89	High
Enabling Others to Act	2.39	1.07	Moderate
Encourage the Heart	2.38	.67	Moderate

According to the data, the undergraduate students at the Hashemite University demonstrated the highest scores in the Challenges the Process dimension ($M = 3.04$, $SD = .89$), while the lowest scores were observed in the Model the Way dimension ($M = 2.11$, $SD = .77$), followed by Encourage the Heart ($M = 2.38$, $SD = .85$).

Question 2: Do differences exist in the leadership skills level of undergraduate students at the Hashemite University based on their gender, college affiliation, and membership in university clubs?

Sex:

The second research question of the study aimed to explore whether there were any differences in the leadership skills level of participants by sex. Each of the five dimensions was subjected to a t-test. Table 2 provides a summary of the scores by sex for each dimension. The results revealed that there was a significant difference ($p=0.05$) on the "Enabling Others to Act" dimension. Specifically, male students reported significantly higher levels of leadership skills related to "Enabling Others to Act" ($M=2.52$, $SD=1.114$) compared to female students ($M=2.27$, $SD=1.032$). However, there were no statistically significant differences found for the other dimensions.

Table 2. t-Tests on differences in Leadership Skills of undergraduate students at the Hashemite University by sex

Scale	Gender	N	M	SD	df	t	p
Model the Way	Male	140	2.17	.812	294	1.290	.198
	Female	156	2.05	.741			
Inspiring a Shared Vision	Male	140	2.52	.767	294	1.348	.179
	Female	156	2.40	.741			
Challenges the Process	Male	140	3.01	.830	294	1.222	.589
	Female	156	3.07	.952			
Enabling Others to Act	Male	140	2.52	.857	294	1.983	.048*
	Female	156	2.27	.849			
Encourage the Heart	Male	140	2.44	.694	294	1.544	.124
	Female	156	2.32	.659			

* Significant at $p=0.05$

College Affiliation:

A t-test was conducted for each of the five dimensions, and the results are presented in Table 3. The data analysis did not reveal any statistically significant difference ($p=0.05$) on any of the five dimensions based on their college affiliation.

Table 3. t-Tests on differences in Leadership Skills level of undergraduate students at the Hashemite University by college affiliation (Humanities=192, Scientific=104)

Scale	College	M	SD	df	t	p
Model the Way	Humanities	2.12	0.734	294	0.305	0.760
	Scientific	2.09	0.853			
Inspiring a Shared Vision	Humanities	2.49	0.771	294	1.149	0.251
	Scientific	2.39	0.722			
Challenges the Process	Humanities	3.03	0.874	294	0.320	0.749
	Scientific	3.06	0.937			
Enabling Others to Act	Humanities	2.36	1.061	294	0.483	.629
	Scientific	2.43	1.109			
Encourage the Heart	Humanities	2.35	0.675	294	1.014	0.311
	Scientific	2.43	0.680			

University Associations and Clubs Membership:

<http://dx.doi.org/10.29009/ijres.6.4.4>

To achieve this, a t-test was conducted on each of the five dimensions, and the results are summarized in Table 3. Surprisingly, a significant difference ($p=0.05$) was found on all dimensions of leadership skills. Specifically, students who were members of university clubs reported a significantly higher level of leadership skills across all five dimensions than students who were not members of university clubs.

Table 4. t-Tests on differences in Leadership Skills level of undergraduate students at the Hashemite University by university club membership (Member=101, Non-member=195)

Scale	University Club Membership	M	SD	df	t	p
Model the Way	Non-Member	1.88	.677	294	3.675	.00*
	Member	2.22	.800			
Inspiring a Shared Vision	Non-Member	2.26	.802	294	3.231	.001*
	Member	2.55	.710			
Challenges the Process	Non-Member	2.74	.942	294	4.263	.00*
	Member	3.20	.831			
Enabling Others to Act	Non-Member	2.18	.840	294	2.340	.020*
	Member	2.49	.849			
Encourage the Heart	Non-Member	2.23	.692	294	2.693	.007*
	Member	2.46	.659			

* Significant at $p= .05$

Discussion and Recommendations

Discussion

The study's first research question explored the leadership skills level of undergraduate students and analyzed the means and standard deviations of the responses to the five dimensions of the S-LPI. The response range was categorized as follows: 1 and below indicated a low level of leadership skills, 2 to 2.99 indicated a moderate level, and 3 to 4 indicated a high level. The results showed that the highest mean score was in the area of "Challenges the Process" ($M = 3.04$, $SD=.89$), while the lowest was in "Model the Way" ($M = 2.11$, $SD=.77$). The means of all five dimensions were close to 2.50, indicating a moderate level of leadership skills. This suggests that the students in the study had attained some level of leadership skills.

<http://dx.doi.org/10.29009/ijres.6.4.4>

The study's results show moderate levels of leadership skills in each of the five dimensions. These findings contradict previous research on leadership among college students (Cooper et al., 1994; Cress et al., 2001; Pascarella, Ethington, & Smart, 1988), which suggested higher levels of development in "Enabling others to act" and "Encourage the heart" skills. Additionally, Cress et al. (2001) found that student leaders were more willing to take risks and perform under pressure, which contradicts this study's findings. Specifically, respondents in this study had higher levels of "Challenges the process" skills and moderate levels of "Model the way" skills, which do not align with Cress' claims.

The current study investigated whether there are any disparities in leadership skills level between male and female students. The results suggest that, in general, male and female students possess similar levels of leadership skills upon enrollment. However, there were differences observed in the "Enabling Others to Act" dimension, with male students demonstrating higher levels of skills in this area than their female counterparts. While some literature reports no significant differences in leadership skills between sexes (Bass, 1991; Komives, 1991; Posner & Brodsky, 1994), other studies suggest that women have higher levels of interpersonal skills, as well as Enabling Others to Act and Challenges the Process skills (Romano, 1996).

Membership in university clubs was found to be significantly associated with higher levels of leadership skills in all five dimensions, compared to non-members. Previous research has consistently shown that participating in student organizations and clubs can have a positive impact on students' academic and leadership experiences (DeSimone, 2012; Anderson, Sabatelli, & Trachtenberg, 2007; Cooper et al., 1994).

The study's findings reveal that undergraduate students possess a moderate level of leadership skills. With the prevalence of claims that graduating from higher education institutions guarantees leadership skills, workshops and programs aimed at improving leadership skills have become increasingly popular across the country. The establishment of a baseline for undergraduate students' leadership skills is crucial, especially as more institutions guarantee leadership skills upon graduation. As outcomes

assessment expands to include leadership skills, support for leadership development among college students is growing. Higher education institutions should take note of this study and promote further research that builds upon its findings to ensure that leadership is not just a promise but a reality.

Recommendations

The study's findings have important implications for those involved in teaching leadership, coordinating leadership workshops and programs, and administering universities. Program coordinators should broaden their focus to include a wider range of leadership skills, such as community development, service learning, ethics and morality, and global leadership. Administrators should assess students' leadership skills at the start and end of their college education to ensure that the resources invested in leadership development are yielding the desired outcomes.

Future studies could build on the five dimensions examined in this study by including additional areas of leadership skills. For example, future studies could investigate the leadership skills of students in scientific and humanities fields. Moreover, further research could aim to identify leadership characteristics specific to women and explore potential gender differences in leadership skills. Such studies would contribute to a more comprehensive understanding of leadership skills and enable better assessment of students' leadership development.

References

- Aksoy, H. H. (1998). Relationship between education and employment: How do employers use educational indicators in hiring? (Results from a participatory observation). Paper presented at World Council for Curriculum & Instruction Region VI. North American Chapter Interdisciplinary Education Conference Theme: Educational Networking: Making Connections for the 21st Century. Ottawa, Ontario, Canada. October 1-3, 1998.
- Anderson, S. A., Sabatelli, R. M., & Trachtenberg, J. (2007). Evaluation of youth leadership training programs. *Journal of Youth Development*, 1(3) 29-45.
- Arminio, J. L., Carter, S., Jones, S. E., Kruger, K., Lucas, N., Washington, J., Young, N., & Scott, A. (2000). Leadership experiences of students of color. *NASPA Journal*, 37(3), 496-509. <https://doi.org/10.2202/1949-6605.1112>
- Bass, B. M. (1991). *Bass and Stogdill's handbook of leadership: A survey of theory and research*. New York: Free Press.
- Baxter Magolda, M. (1992). *Knowing and reasoning in college: Gender-related patterns in students' intellectual development*. San Francisco: Jossey-Bass.
- Chelladurai, P. (2011). Participation in sport and leadership development. In S. E. Murphy & R. J. Reichard (Eds.), *Early development and leadership: Building the next generation of leaders* (pp. 3-38). New York, NY: Routledge.
- Cooper, D. L., Healy, M. A., & Simpson, J. (1994). Student development through involvement: Specific changes over time. *Journal of College Student Development*, 35, 98-102.

- Cox, L. S., & Miranda, D. (2003). Enhancing student leadership development in community settings. *Nurse Educator*, 28(3), 127-131.
<https://doi.org/10.1097/00006223-200305000-00006>
- Cress, C. M., Astin, H. S., Zimmerman-Oster, K., & Burkhardt, J. C. (2001). Developmental outcomes of college students' involvement in leadership activities. *Journal of College Student Development*, 42(1), 15-27.
- DeSimone, L. (2012). Youth leadership development from the grade 8 perspective: A case study of a school-based program (Thesis). Retrieved from https://tspace.library.utoronto.ca/bitstream/1807/33643/1/DeSimone_Laura_201211_MA_thesis.pdf
- Fraser-Thomas, J. L., Côté, J. & Deakin, J. (2007). Youth sport programs: An avenue to foster positive youth development. *Physical Education and Sport Pedagogy*, 10(1), 19-40.
- Gallagher, R. P., Golin, A., & Kelleher, K. (1992). The personal, career, and learning skills needs of college students. *Journal of College Student Development*, 33, 301-309.
- Graham, S., & Cockriel, I. (1997). A factor structure for social and personal development outcomes in college. *NASPA Journal*, 34(3), 199-216.
- Hancock, D., Dyk, P. H., & Jones, K. (2012). Adolescent involvement in extracurricular activities: Influences on leadership skills. *Journal of Leadership Education*, 11(1), 84- 101.
- Hansen, D. M., Larson, R. W., & Dworkin, J. B. (2003). What adolescents learn in organized youth activities: A survey of self-reported developmental experiences. *Journal of Research on Adolescence*, 13(1), 25-55.
<https://doi.org/10.1111/1532-7795.1301006>

- The Hashemite University (2007). Student Life - The Deanship of Student Affairs
Retrieved July 17, 2007, from
<http://www.hu.edu.jo/Inside/StudentLife/StudentAffairs.asp>
- Henderson, K. A., Bialeschki, M. D., Scanlin, M. M., Thurber, C., Whitaker, L. S., &
Marsh, P. E. (2007). Components of camp experiences for positive
youth development. *Journal of Youth Development*, 1(3), 1-12.
- Holdsworth, R. (2000). Schools that create real roles of value for young people.
Prospects: Quarterly Review of Education, 30(3), 349-362.
<https://doi.org/10.1007/BF02754058>
- Kerka, S. (1990). Job-related basic skills. ERIC Digest No. 94, ED318912.
- Kimbrough, W.M., & Hutcheson, P.A. (1998). The impact of membership in Black
Greek-letter organizations on Black students' involvement in collegiate
activities and their development of leadership skills. *The Journal of
Negro Education*, 67(2), 96-105. <https://doi.org/10.2307/2668220>
- Komives, S. R. (1991). Gender differences in the relationship of hall directors'
transformational and transactional leadership and achieving styles.
Journal of College Student Development, 32(2), 155-165.
- Komives, S. R. (1994). Women student leaders: Self-perceptions of empowering
leadership and achieving style. *NASPA Journal*, 31(2), 102-111.
- Kouzes, J.; Posner, B. (2012). *The Leadership Challenge: How to Make
Extraordinary Things Happen*, 5th ed.; Jossey-Bass: San Francisco, CA,
USA.
- Kouzes, J. M., & Posner, B. Z. (1998). Student leadership practices inventory. (3rd
ed.).
- Kuh, G. D. (1993). In their own words: What students learn outside the classroom.
American Educational Research Journal, 30(2), 277-304.
<https://doi.org/10.3102/00028312030002277>

<http://dx.doi.org/10.29009/ijres.6.4.4>

- Larson, R., Walker, K., & Pearce, N. (2005). A comparison of youth-driven and adult-driven youth programs: balancing inputs from youth and adults. *Journal of Community Psychology*, 33(1), 57–74.
<https://doi.org/10.1002/jcop.20035>
- Litchman, J. (1998). The cyber sisters club: Using the internet to bridge the technology gap with inner city girls. *T. H. E. Journal (Technological Horizons in Education)*, 26(5), 47-54.
<https://www.thefreelibrary.com/The+Cyber+Sisters+Club%3a+U+sing+the+Internet+to+Bridge+the+Technology...-a053475271>
- Mitra, D.L. (2006). Increasing student voice and moving toward youth leadership. *The Prevention Researcher*, 13(1), 7–10.
- Pascarella, E., Ethington, C., & Smart, J. (1988). The influence of college on humanitarian/ civic involvement values. *Journal of Higher Education*, 59(4), 412-437. <https://doi.org/10.1080/00221546.1988.11780198>
- Petre, G.E. (2020). Developing students' leadership skills through cooperative learning: An action research case study. *International Forum, the Interdisciplinary Research Journal of the AIIAS Graduate School*, 23(2), 143-162.
- Posner, B. (2004). A leadership development instrument for students: Updated. *Journal of College Student Development*, 45(4), 443-456.
<http://dx.doi.org/10.1353/csd.2004.0051>
- Posner, B. Z., & Brodsky, B. (1994). Leadership practices of effective student leaders: Gender makes no difference. *NASPA Journal*, 31(2), 113-120.
<https://doi.org/10.1080/00220973.1994.11072347>
- Quinn, C. (2004). Rise: Want to run the show? Catherine Quinn reports on ways students can buff up their leadership skills. *The Guardian*, February 21, 2.

- Rehman, A., & Farooq, A. (2017). Leadership skills and competencies of students at universities in India. *Advances in Economics and Business Management (AEBM)*, 4(8), 559-564.
<http://www.krishisanskriti.org/Publication.html>
- Reinen, J. & Plomp, T. (1997). Information technology and gender equality: A contradiction in terms? *Computers and Education*, 28(2), 65-78. .
[https://doi.org/10.1016/S0360-1315\(97\)00005-5](https://doi.org/10.1016/S0360-1315(97)00005-5)
- Romano, C. R. (1996). A qualitative student of women student leaders. *Journal of College Student Development*, 37(6), 676-683.
- Romero-Aldaz, P. I. (2001). The leading edge: Outcomes achieved by residence hall association leaders. Unpublished master's thesis, Virginia Polytechnic Institute and State University, Blacksburg, Virginia.
- Santosus, M. (2003). CIOs in a class by themselves. *CIO Magazine*, November 1.
- Seemiller, C. (2018). A competency-based model for youth leadership development. *Journal of Leadership Education*, 17, 56-72.
<https://doi.org/10.12806/V17/I1/R1>
- Shashaani, L. (1997). Gender differences in computer attitudes and use among college students. *Journal of Educational Computing Research*, 16(1), 37-52.
<https://doi.org/10.2190/Y8U7-AMMA-WQUT-R512>
- Spotts, T. H., Bowman, M. A., & Mertz, C. (1997). Gender and use of instructional technologies: A study of university faculty. *Journal of Higher Education*, 34, 421-436. <https://doi.org/10.1023/A:1003035425837>
- Stronge, J. H. (1998). Leadership skills in school and business. *The School Administrator*, 55(9), 21-24.
- Thompson, M. D. (2013). Student Leadership Development and Orientation: Contributing Resources within the Liberal Arts. *American Journal of*

Educational Research, 1(1):1-5. <https://doi.org/10.12691/education-1-1-1>.

Thurber, C. A., Scanlin, M. M., Scheuler, L., & Henderson, K. A. (2007). Youth development outcomes of the camp experience: Evidence for multidimensional growth. *Journal of Youth Adolescence*, 36(3), 241-254. <https://doi.org/10.1007/s10964-006-9142-6>

Turrentine, C. G. (2001). A comparison of self-assessment and peer assessment of leadership skills. *NASPA Journal*, 38(3), 361-271. <https://doi.org/10.2202/1949-6605.1142>

Van Linden, J. A., & Fertman, C. I. (1998). *Youth leadership: A guide to understanding leadership development in adolescents*. San Francisco: Jossey-Bass.