

The Impacts of University Activities and Teaching Methods on Leadership Capacity of Vietnamese Junior University Students: A Case Study

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Abstract

Student leadership is accepted as one of the most important outcomes from higher education and it is highly regarded by universities and employers. This study explored the students' perceptions of leadership capacity in Vietnamese universities, and the relationship of perceived factors of university activities and teaching methods to students' leadership capacity were examined. A survey questionnaire measuring six factors of leadership capacity was distributed to 343 junior students to studying full-time at the four universities in Ho Chi Minh City, Vietnam. The results indicate that the most students were strongly measured with their leadership capacity. In addition, the results also indicate that not all factors of university activities and teaching methods enhanced students' leadership efficacy. There are two items of university activities factor, namely self-governing and charitable activities; and only item interaction between teacher and student of teaching methods factor which generally yielded significantly position effect on leadership capacity of Vietnamese student. The study's implications for university management were also discussed.

Keywords: *Vietnam student, leadership capacity, university activities, teaching methods, Vietnamese higher education*

1. Introduction

Student leadership plays a very important role in the university which is accepted as one of the most important outcomes from higher education (Astin, 1991, 1999; Guthrie & Osteen, 2012; Komives, Dugan, Owen, Slack, & Wagner, 2011) and it is highly regarded by universities and employers (Bacon, Benton & Grubeberg, 1979). However, almost studies of the leadership have been conducted with university students as participants (Avolio, Chan, & Chan, 2005), but few of these studies have interpreted results in the context of higher education (Dugan, Garland, Jacoby, & Gasiorski, 2008). The study of Smart, Ethington, Riggs, and Thompson (2002) indicated that the responsibility of higher education must be developing student leadership capacity. Higher education is being turned to role in developing leadership capacity among today's students (Astin & Astin, 2000; Morse, 2004, Casner-Lotto, Barrington, & Wright, 2006). The ways best developed particular capacities at university showed that group work was preferred the development of oral communication, problem solving, teamwork, leadership, assuming responsibility and making decisions and high ethical standards (Crebert, Bates, Bell, Patrick, & Cragolini, 2004). In Vietnam, a survey on management competences in the study of

Swierczek and Tran (2000) conducted that capacities of decision making, leadership, problem-solving, timing, prioritizing and information management highly ranked. In this study, we focused only on leadership capacity of Vietnamese university students.

King (1997) indicated that student leadership development may be one of the most challenging and important goals of higher education and the increased presence of both curriculum and co-curriculum programs (Astin & Astin, 2000). Many mission of higher education institutions build student leadership capacities, to increase responsible civic participation, and to create life-long learners (Cress, Astin, Zimmerman-Oster, & Burkhardt, 2001), however, leadership development programs should be designed are not clear (Osteen & Coburn, 2012) and inattention to leadership efficacy which fail to continue growth of students (Dugan, 2012). As a result, university students do not have the confidence to identify as leaders and to engage in substantive leadership roles in their communities. In Vietnam, students have been recognized to examination results and curricular achievements but to be passive in co-curricular involvement (Kelly, 2000). Students often do not realize the linkage between co-curricular involvement and capacities development. The study about how curricular engagement and co-curricular involvement may affect student leadership development might enlighten the traditional education notion in Vietnam.

The relationship between efficacy and capacity was relatively ignored in the empirical research. A number of studies recognized individuals' levels of self-efficacy for leadership or leadership-related skills (Bandura, 1997). Yet, few studies have examined its influence in larger predictive models examining theoretically derived measures of students' leadership capacities (Dugan & Komivers, 2010). This study used HERI's the social change model of leadership to measure leadership capacity on Vietnamese university campus, and Astin's Input - Environment - Outcome (I-E-O) model to analyze how student experiences during the university affect their leadership capacity. The I-E-O model has been influential university impact studies (Pascarella & Terenzini, 2005). Using the I-E-O model allows researchers to explore the predictions of environmental variables on desired outcomes (Lim, 2015). In the I-E-O model: *Input* refers to student characteristics, *Environment* refers to institutional interventions, and *Outcome* refers to student achievement, development, and growth (Astin, 1991; Pascarella & Terenzini, 2005). The social change model of leadership was designed specifically for college students (HERI, 1996). Caza and Rosch (2014) found that the social change model of leadership has been used effectively in examining in leadership capacity. The social change model of leadership development is congruent with definitions of leadership focused on benefits from its broad use on college campuses (Kezar et al., 2006).

They also provide the role higher education which may play in developing students' leadership capacity. The study of Antonio, (2001), Dugan et al. (2008), and Smart et al. (2002) showed that students' precollege leadership capacity and knowledge regularly emerge as the most significant predictors of leadership. The studies recognized that the relationships between and leadership capacity related to different factors, such as demographic group membership (Kezar, Carducci, & Contreras-McGavin., 2006; Pascarella & Terenzini, 2005), race (Kezar & Moriarty, 2000), gender (Dugan, 2006a; Dugan, Komives, & Segar, 2008; Posner, 2004), college environment (Antonio, 2001;

Komives, Longerbeam, Owen, Mainella, & Osteen, 2006; Smart et al., 2002; Pascarella & Terenzini, 2005), community service (Astin, Keup, & Lindholm, 2002; Dugan, 2006b; Kezar & Moriarty, 2000; Thompson, 2006), internships (Cress et al., 2001; Kezar & Moriarty, 2000), interracial interaction (Antonio, 2001; Kezar & Moriarty, 2000), positional leadership roles (Dugan, 2006b; Kezar & Moriarty, 2000), faculty interactions and mentoring (Astin, 1993; Komives et al., 2006; Thompson, 2006), and formal leadership training programs (Cress et al., 2001; Dugan, 2006b; Kezar & Moriarty, 2000), participation in leadership education and training programs (Cress et al., 2001), interracial contacts (Antonio, 2001).

The literature specifically related to the influence of higher education on students' capacities for leadership is relatively sparse (Dugan & Komives, 2007; Kezar et al., 2006) and suffered from a number of limitations that necessitate further research. The study of Dugan and Komives (2007) identified that there were some overarching problems on the leadership capacity of university students, including: a significant gap between theory and practice, an unclear picture of the leadership development needs of university students, and uncertainty regarding the influence of the university environment on leadership development outcomes. Therefore, this theme should be more research to contribute to fill in the literature gap of Vietnamese higher education in particular and the world in general.

In Vietnam, event loss between the employer needs and university responsiveness created the shortage of skilled workers, the lack of work-related competencies, and the high level of unemployment in graduates (Oliver, 2002). Most competences are often merged together with the conventional curriculum, thus, different learning approaches gives students the opportunities to practice different competences (Tran & Swierczek, 2009). Employers' needs and competences objectives are nevertheless often underrated in Vietnamese universities curriculum. Student competences development has not received adequate concern which shortfall of pedagogic paradigms for developing competences in universities (Tran & Swierczek, 2009). Student competences development is a big challenge for Vietnamese universities to meet employer needs in their curriculum objectives become an urgent issue. It identifies and discusses factors in Vietnamese university students' leadership capacity which contributes most to their learning achievement and develops capacities to meet labour market needs.

2. Research Objectives

The main purpose of this study is to examine factors affecting leadership capacity of Vietnamese university students. The following study objectives are formulated:

- 1) To describe the level of students' perceptions of leadership capacity in Vietnamese universities,
- 2) To examine how significant influence on students' leadership capacity by university activities and teaching methods factors.

3. Research Questions

This study specifically addressed the following two questions:

- 1) What is the general level of students' leadership capacity in Vietnamese universities?
- 2) How is students' leadership capacity affected by university activities and teaching methods?

4. Methods

4.1 Participants

The authors designed and implemented a survey and sampled junior students from the four universities in Ho Chi Minh City, which ranked at the peak of the 235 higher education institutes in Vietnam (Ministry of Education and Training of Vietnam, 2016) including University of Transport, University of Nong Lam (University of Agriculture and Forestry), University of Technology (one of members of Vietnam National University Ho Chi Minh City), and University of Technology and Education. Moreover, junior students are the ideal population for observations of university learning, whereas senior students are gradually departing from campus because of career pursuits (Huang & Chang, 2004).

As a result, questionnaire was distributed to 400 students of science and technology areas who were drawn from junior students to studying full-time at the four universities, and 343 questionnaires were returned for 85.75% return rate which exceeded the 30% response rate to most researchers for analysis purpose (Dillman, 2000; Malaney, 2002). All data of respondents were self-reported information which was prevalently used in higher education research (Gonyea, 2005). Considering that this study pored over gender differences, approximate samples of women (113) and men (230) were collected to avoid unnecessary statistical bias over the results.

4.2 Variables

The dependent variable of this study, leadership capacity, was constructed according to six questionnaire items measuring student capacities of respectful of others, following promises, promoting of cooperation relationships, modeling for others, putting benefit group on individual, and honest praise someone by a 5-point scale with responses ranging from 1 = very weak to 5 = very strong. Bandura (1997) agreed that one's self-perceived or believed capacities for a specific task are of substantial predictive validity for one's actual task performances. University students' self-perceived leadership capacity was attested to closely correlate with their leadership role behaviors (Shertzer & Schuh, 2004). Moreover, self-reported data are prevalent and pragmatic, particularly for studies on university students (Gonyea, 2005) and received considerable attention with regard to their ability to adequately measure educational gains (Anaya, 1999; Gonyea, 2005; Pascarella, 2001). In this study, Vietnamese university students were self-reported on their leadership capacity.

Factor analysis and internal consistency analysis (Cronbach’s α) were conducted to assess the validity and reliability of this constructed measurement for leadership capacity of Ho Chi Minh City university students. Table 3 shows that the factor loading values of the six items (0.67–0.72) were higher than the threshold value of 0.5 (Kaiser, 1958; Hair, Anderson, Tatham, & Black, 2009). Internal consistency analysis revealed a Cronbach’s coefficient (0.80) higher than the threshold value of 0.6 (Hair et. al, 2009) or 0.7 (Nunnally & Bernstein, 1994), indicating satisfactory reliability. Based on the validation of construct reliability which is concluded that research construct of leadership capacity is reliable.

Table 1 shows the correlation among six dimensions of student’ leadership capacity including respectful of others, following promises, promoting of cooperation relationships, modeling for others, putting benefit group on individual, and honest praise someone. The value of correlation coefficient ranges from 0.310 to 0.510 was relatively high positive correlation between factors of leadership capacity. The relationship between respectful of others and following promises ($r = .510$) were highest associated. Other significant associations are lowest found between modeling for others and respectful of others ($r = .310$).

Table 1

The results of correlation between six aspects of student’ leadership capacity

	1	2	3	4	5	6
1. Respectful of others	1					
2. Following promises	.541**	1				
3. Promoting of cooperation relationships	.387**	.429**	1			
4. Modelling for others	.310**	.434**	.481**	1		
5. Putting benefit group on individual	.389**	.332**	.397**	.499**	1	
6. Honest praise someone	.429**	.313**	.346**	.382**	.435**	1

*Note: ** Correlation is significant at the 0.01 level (2-tailed).*

The independent variables of this study encompassed 3 categories: factors of personal, university activities, and teaching methods. Table 2 shows the details of operational definitions, means, and standard deviations of the research variables.

Table 2

Operational definitions, means, and standard deviations of the variables.

Dependent Variable

Leadership capacity

Constructed according to six capacity items of respectful of others, following promises, promoting of cooperation relationships, modelling for others, putting benefit group on individual, and honest praise someone. Measured on a 5-point scale, where 1 = *very weak* and 5 = *very strong* ($M = 3.98, SD = 0.61$).

Independent Variable

Personal factors

Gender: Female = 1, male = 0

University: measured on a 4-point scale, where 1 = *University of Transport*, 2 = *University of Technology*, 3 = *University of Nong Lam*, 4 = *University of Technology and Education* ($M = 2.33$, $SD = 1.16$)

Father occupation: measured on a 15-point scale, where 1 = *staff officer or leaders*, 2 = *highly qualified staff*, 3 = *general teachers*, 15 = *unemployment* ($M = 7.00$, $SD = 3.54$).

Mother occupation: measured on the same scale as that for father's occupation ($M = 9.15$, $SD = 4.47$)

University activities

Self-governing: measured on a 5-point scale, where 1 = *never* and 5 = *always* ($M = 3.07$, $SD = 1.16$)

Sports activities: measured on the same scale as that for self-governing ($M = 3.12$, $SD = 1.24$)

Charitable activities: measured on the same scale as that for self-governing ($M = 3.28$, $SD = 1.15$)

Unions outside school: measured on the same scale as that for self-governing ($M = 2.84$, $SD = 1.26$)

Teaching methods

Problem solving: measured on a 5-point scale, where 1 = *strongly agree* and 5 = *strongly disagree* ($M = 3.96$, $SD = 0.73$)

Interaction between teacher and student: measured on the same scale as that for problem solving ($M = 4.07$, $SD = 0.86$)

Group discussion: measured on the same scale as that for problem solving ($M = 4.01$, $SD = 0.76$)

Experiment with the help of the teacher: measured on the same scale as that for problem solving ($M = 4.21$, $SD = 0.77$)

Self-research reports: measured on the same scale as that for problem solving ($M = 3.97$, $SD = 0.80$)

4.3 Data analyses

This study employed statistical methods of descriptive analyses, independent *t*-test and the one-way analysis of variance (ANOVA), and multiple regression analyses to analyze the data. Descriptive analyses were computed to understand the general level of leadership capacity of Ho Chi Minh City university students. An independent *t*-test and ANOVA were performed to test the mean differences in leadership capacity scores across junior students' type of gender, university where students are studying, father and mother occupation. A series of separate stepwise multiple regression analyses were conducted to analyze the effects of university activities and teaching methods factors on students' leadership capacity.

5. Research Results

5.1 The level of leadership capacity in Vietnamese university students

Table 3 presents the results statistical means (M) and standard deviations (SD) of the level as well as six aspect of students' leadership capacity, including respectful of others, following promises, promoting of cooperation relationships, modelling for others, putting benefit group on individual, and honest praise someone. Results indicate that the most students were strongly measured with their leadership capacity ($M = 3.98$, $SD = 0.61$).

For the six factors of leadership capacity in Vietnamese university students, the findings of Table 3 also show that students were strongly agreed with respectful of others ($M = 4.25$, $SD = 0.84$), followed by following promises ($M = 4.05$, $SD = 0.86$), honest praise someone ($M = 4.03$, $SD = 0.83$), and promoting of cooperation relationships ($M = 3.92$, $SD = 0.85$). Students were least agreed with putting benefit group on individual ($M = 3.88$, $SD = 0.94$), and followed by modelling for others ($M = 3.72$, $SD = 0.87$).

Table 3

The results of Means (M) and standard deviations (SD) of students' leadership capacity

Factors	Factor loadings	Cronbach's α	M	SD
1. Respectful of others	0.72	0.80	4.25	0.84
2. Following promises	0.72		4.05	0.86
3. Promoting of cooperation relationships	0.71		3.92	0.85
4. Modelling for others	0.73		3.72	0.87
5. Putting benefit group on individual	0.72		3.88	0.94
6. Honest praise someone	0.67		4.03	0.83
Total			3.98	0.61

5.2 Effects of university activities and teaching methods on the leadership efficacy of Vietnamese university students

In Table 4, Models 1 to 3 were stepwise regression analyses to clearly present the effects of variable combinations on the leadership capacity of the Vietnamese students. These models present coefficients of β values, with $\beta > 0$ indicating a positive effect and $\beta < 0$ indicating a negative effect on the leadership capacity. The different regression models had different explanation for students' leadership capacity across different factors. Table 4 displays three models of multiple regression statistics which analyzed the effect across university activities and teaching methods factors on leadership capacity in Vietnamese students. Models 1 through 2 present the separate effects of these factors on students' leadership capacity, and Models 3 present the combined effects. Regression model proposed by this study explained 16.7 per cent of students' leadership capacity ($Adj. R^2 = .167$)

Table 4

The results of regression analyses of variable effects on the leadership capacity of the Vietnamese university students

Factors	Model 1	Model 2	Model 3
<i>University activities</i>			
Self-governing	2.522*		1.898*
Sports activities	-0.858		-1.184
Charitable activities	2.580*		2.067*
Unions outside school	-1.855		-1.390
<i>Teaching methods</i>			
Problem solving		1.172	0.903
Interaction between teacher and student		3.566***	3.540***
Group discussion		0.269	0.063
Experiment with the help of the teacher		1.541	1.536
Self-research reports		2.111*	1.673
<i>Adj. R²</i>	.055	.143	.167

Note. * $p < .05$, *** $p < .001$

Model 1 showed that two items of university activities factor, namely self-governing ($\beta = 2.522$, $p < 0.05$), and charitable activities ($\beta = 2.580$, $p < 0.05$) had significant effect on student leadership capacity. Although previous studies have not indicated a direct linkage between university activities and leadership capacity, we deduced that students with self-governing activities (such as students' union of school or department) and charitable activities (including charity organization, support child organization) would likely expect leader positions in the workplace. They may thus anticipate and perceive themselves to have leadership capabilities in the group activities. Some of factors of teaching methods in Model 2 yielded significant relationship with students' leadership capacity in Vietnamese universities. Interaction between teacher and student ($\beta = 3.566$, $p < 0.001$) and self-research reports ($\beta = 2.511$, $p < 0.05$) were positively associated with students' leadership capacity in Vietnamese universities.

As Table 4, note that not all factors of university activities and teaching methods exhibited a significant benefit on students' leadership capacity in Model 3. Model 3 showed some of factors of university activities and teaching methods generally exerted significant effects on the leadership capacity of the Vietnamese university students ($p < .05$ and $.001$). The results of Model 3 were similarly reported in Model 1 that both self-governing and charitable activities factors significantly benefited the students' leadership capacity. There were different the results between Model 3 and 2 for self-research reports factor which had no significant influence on students' leadership capacity in Vietnam. Interaction between teacher and student item ($\beta = 3.540$, $p < 0.001$) remained to be positively associated with students' leadership capacity in Model 3 and 2.

6. Discussion of the Results

Based on the results of this study, there are some major points as follows:

1) The most faculty members were strongly measured with their leadership capacity in this study. Previous studies have found a difference result of this study, Wu (2011) showed that Taiwanese students general perceived their level of leadership capacity to be between weak (freshman students) and average (junior students). In addition, the study of Oliver (2002) showed that students created the shortage of skilled workers, the lack of work-related competencies. The research used different approaches and instruments to measure teaching efficacy for faculty members in higher education, thus, they have different results. Studies also showed that student leadership capacity development in the curriculum and co-curriculum play a very important role at the universities. Student competences development has not received adequate concern which shortfall of pedagogic paradigms for developing competences in universities (Tran & Swierczek, 2009).

2) The findings of this study showed that student leadership capacity had significant positive influence by university activities and teaching methods factors. Previous studies have found a positive relationship between students' leadership capacity and university activities. Activist university students can gain a range of practical capacities and creates opportunities for students to navigate complex policies and power dynamics in the universities (Kezar & Lester, 2011). Dugan (2006b) demonstrated that students develop leadership capacity by participating in community service rather than holding a position in organizations. Furthermore, the study of Biddix, Somers, and Polman (2009) identified that how leadership capacity developed through activism are similar to those developed in traditional leadership roles within student organizations. Thus, by acknowledging leadership opportunities within the realm of student activism, administrators can identify ways to capitalize on existing student activity. For teaching methods, the research of De La Harpe, Radloff, and Wyber (2000) found that student-centered and process-focused approaches are effective methods for advancing capacities for university students. There is not more empirical research done about the relationship between students' leadership capacity and teaching methods in Vietnam or even in other parts of the world. The results of this study, thus, cannot be compared to results of others. Further research about the relationship among them will contribute to fill in the literature gap.

7. Conclusion

This study explored the students' perceptions of leadership capacity in Vietnamese universities, and the relationship of perceived personal, university activities and teaching methods factors to students' leadership capacity were examined. The empirical results revealed that the most faculty members were strongly measured with their leadership capacity in Vietnamese universities. However, there is still much room for university administrators and specialist to improve the level of leadership capacity of

Vietnamese university students in the process of designing training programs. In addition, the findings of study also indicated that factors of university activities and teaching methods enhanced Vietnamese students' leadership efficacy, namely items of self-governing, charitable activities, and interaction between teacher and student generally yielded significantly position effect on leadership capacity of Vietnamese students. Policy makers and university administrators in Vietnamese universities should focus on improving three items of two factors rather than other factors in the process of constructing a universal intervention to enhance student leadership capacity in Vietnam.

8. Limitations of Study

Although this study obtained results that have both theoretical and pedagogical implications, it has some limitations. The primary limitation is that four universities in Ho Chi Minh City of sciences and technology areas were sampled in this study, and thus, the results and implications should be applied with caution to students from different levels of higher education institutes or academic disciplines. Further research should collect student samples from various higher education levels and disciplines to accumulate abundant empirical information on the learning outcomes and university activities of Vietnamese university students. It is hoped that the barrier to the students' leadership capacity is found in this study maybe useful for university managers and policy makers to develop learning environment, establishment of teams or clubs, university activities and construction training programs. Therefore, a detailed understanding of students' leadership capacity is the key to improving the well-being of a large number of studying individual and the preparation of civically engaged citizens would increase dramatically.

9. Declaration of conflicting interests

The author declared no potential conflict of interest with respect to the authorship and publication of this article.

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11. References

Anaya, G. (1999). College impact on student learning: Comparing the use of self-reported gains, standardized test scores, and college grades. *Research in Higher Education*, 40, 499-526

Astin, A. W. (1991). *Assessment for excellence: The philosophy and practice of assessment and evaluation in higher education*. New York, NY: Macmillian.

Astin, A. W. (1999). Student involvement: A developmental theory for higher education. *Journal of college student development*, 40(5), 518-529.

Astin, A. W., & Astin, H. S. (2000). *Leadership reconsidered: Engaging higher education in social change*. Battle Creek, MI: W. K. Kellogg Foundation.

Astin, A. W., Keup, J. R., & Lindholm, J. A. (2002). A decade of changes in undergraduate education: A national study of “system transformation.” *Review of Higher Education*, 25, 141-162.

Avolio, B.; Chan, A. & Chan, N. (2005). Executive summary: 100 Year review of leadership intervention research: Briefings Report 2004-01, Gallup Leadership Institute. *Leadership Review*, 5, 7-13

Bacon, C., Benton, D., & Gruneberg, M. M. (1979). Employers' options of university and polytechnic graduates. *Journal of vocational education and training*, 31(80), 95-102.

Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: W.H. Freeman

Biddix, J. P., Somers, P. A., & Polman, J. L. (2009). Protest reconsidered: Identifying democratic and civic engagement learning outcomes. *Innovative Higher Education*, 34, 133–147.

Casner-Lotto, J., & Barrington, L. (2006). *Are They Really Ready to Work? Employers' Perspectives on the Basic Knowledge and Applied Skills of New Entrants to the 21st Century US Workforce*. Washington, DC: Partnership for 21st Century Skills

Caza, A., & Rosch, D. M. (2014). An exploratory examination of students' preexisting beliefs about leadership. *Studies in Higher Education*, 39(9), 1586-1598

Clayborne, H. L., & Hamrick, F. A. (2007). Rearticulating the leadership experiences of African American women in midlevel student affairs administration. *NASPA Journal*, 44, 123–146.

Crebert, G., Bates, M., Bell, B., Patrick, C., & Cragolini, V. (2004). Developing generic skills at university, during work placement and in employment: graduates' perceptions. *Higher Education Research and Development*, 23(2), 147-165

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

De La Harpe, B., Radloff, A., & Wyber, J. (2000). Quality and generic (professional)

skills. *Quality in higher education*, 6 (3), 231–243

Dugan, J. P. (2006a). Explorations using the social change model: Leadership development among college men and women. *Journal of College Student Development*, 47(2), 217-225

Dugan, J. P. (2006b). Involvement and leadership: A descriptive analysis of socially responsible leadership. *Journal of College Student Development*, 47(3), 335-343.

Dugan, J. P. (2012). Exploring local to global leadership education assessment. In K. L. Guthrie, & L. Osteen (Eds.), *New directions for student services: Developing students' leadership capacity* (pp. 89-101). San Francisco, CA: Jossey-Bass

Dugan, J. P., & Komives, S. R. (2007). *Developing leadership capacity in college students: Findings from a national study. A Report from the Multi-Institutional Study of Leadership*. College Park, MD: National Clearinghouse for Leadership Programs.

Dugan, J. P., & Komives, S. R. (2010). Influences on college students' capacities for socially responsible leadership. *Journal of College Student Development*, 51(5), 525-549

Dugan, J. P., Komives, S. R., & Segar, T. C. (2008). College student capacity for socially responsible leadership: Understanding norms and influences of race, gender, and sexual orientation. *NASPA Journal*, 45(4), 475–500

Dugan, J. P., Garland, J. L., Jacoby, B., & Gasiorski, A. (2008). Understanding commuter student self-efficacy for leadership: A within-group analysis. *NASPA Journal*, 45, 282–310.

Duong, M. Q., Wu, C. L., & Hoang, M. K. (2017). Student inequalities in Vietnamese higher education? Exploring how gender, socioeconomic status, and university experiences influence leadership efficacy. *Innovations in Education and Teaching International*

Gonyea, R. M. (2005). Self-reported data in institutional research: Review and recommendations. In P. D. Umbach (Ed.), *Survey research emerging issues: New directions for institutional research* (pp. 73–89). San Francisco: Jossey-Bass.

Guthrie, K. L., & Jones, T. B. (2012). Teaching and learning: Using experiential learning and reflection for leadership education. In K. L. Guthrie, & L. Osteen (Eds.), *New directions for student services: Developing students' leadership capacity* (pp. 53-63)

Hair, J. F., Tatham, R.L., Anderson, R.E., Black, W. (2009). *Multivariate data analysis* (6 ed.). Upper Saddle River, NJ: Prentice Hall

HERI (Higher Education Research Institute). (1996). *A social change model of leadership*

development: Guidebook version III. College Park, MD: National Clearinghouse for Leadership Programs

Huang, Y.-R., & Chang, S.-M. (2004). Academic and cocurricular involvement: Their relationship and the best combinations for student growth. *Journal of College Student Development*, 45(4), 391-406.

Kelly, K. (2000). The higher education system in Vietnam. *World Education News and Reviews*, 13(3), 5-6.

Kezar, A. J., Carducci, R., & Contreras-McGavin, M. (2006). Rethinking the “L” word in higher education: The revolution in research on leadership. *ASHE Higher Education Report*, 31(6), 15-39.

Kezar, A., & Lester, J. (2011). *Enhancing campus capacity for leadership: An examination of grassroots leaders in higher education*. Stanford, CA: Stanford University Press.

Kezar, A., & Moriarty, D. (2000). Expanding our understanding of student leadership development: A study exploring gender and ethnic identity. *Journal of College Student Development*, 41, 55-68.

King, P. M. (1997). Character and civic education: What does it take? *Educational Record*, 78 (3,4), 87-90.

Komives, S. R., Dugan, J. P., Owen, J. E., Slack, C., & Wagner, W. (2011). *The handbook for student leadership development* (2nd ed.). San Francisco, CA: Jossey-Bass

Komives, S. R., Longerbeam, S., Owen, J. O., Mainella, F. C., & Osteen, L. (2006). A leadership identity development model: Applications from a grounded theory. *Journal of College Student Development*, 47, 401-418

Lim, D. Y. (2015). *Exploring & identifying predictors that affect asian american college students' sense of belonging: "How do I fit in?"* Unpublished dissertations, University of Maryland, USA

Ministry of Education and Training of Vietnam. (2016). *Statistical higher education in 2016-2017*. Retrieved from <https://www.moet.gov.vn>

Morse, S. W. (2004). *Smart communities: How citizens and local leaders can use strategic thinking to build a brighter future*. San Francisco: Jossey-Bass

Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric theory* (2 ed.). New York, NY: McGraw-Hill.

Oliver, D. (2002). The US community college model and Vietnam's higher education system. In: Texas Tech University Vietnam center's 4th triennial symposium, Lubbock.

Osteen, L., & Coburn, M. B. (2012). Considering context: Developing students' leadership capacity. In K. L. Guthrie, & L. Osteen (Eds.), *New directions for student services: Developing students' leadership capacity* (pp. 5-15). San Francisco, CA: Jossey-Bass

Pascarella, E. T. (2001). Using student self-reported gains to estimate college impact: A cautionary tale. *Journal of College Student Development*, 42, 488-492

Pascarella, E. T., & Terenzini, P. T. (2005). *How college affects students: A third decade of research*. San Francisco: Jossey-Bass

Posner, B. Z. (2004). A leadership development instrument for students: Updated. *Journal of College Student Development*, 45, 443-456.

Shertzer, J. E., & Schuh, J. H. (2004). College student perceptions of leadership: Empowering and constraining beliefs. *NASPA Journal*, 42(1), 111-131.

Smart, J. C., Ethington, C. A., Riggs, R. O., & Thompson, M. D. (2002). Influences of institutional expenditure patterns on the development of students' leadership competencies. *Research in Higher Education*, 43, 115-132.

Swierczek, F. W., & Tran, T. L. A. (2000). Management training needs in Ho Chi Minh City (Vietnam): Assessment in plastics and textile-garment industries. Unpublished master's thesis, Asian Institute of Technology Bangkok: Asian Institute of Technology

Thompson, M. D. (2006). Student leadership process development: An assessment of contributing college resources. *Journal of College Student Development*, 47(3), 343-350

Tran, Q. T., & Swierczek, F. W. (2009). Skills development in higher education in Vietnam. *Asia Pacific Business Review*, 15(4), 565-586

Wu, C. L. (2011). Effects of college experiences on male and female student leadership capacity in Taiwan. *Asia Pacific Education Review*, 12(4), 641-652.

Wu, C. L. (2012). A Comparison of the Effects of University Learning Experiences on Student Leadership at Taiwanese General and Technical Universities. *Asia-Pacific Education Researcher*, 21(1), 130-140.