Objective outcome evaluation of service leadership education for university students in Hong Kong

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Abstract: This study investigated the outcomes of credit-bearing service leadership education at The Hong Kong Polytechnic University via pretest-posttest design. A total of 316 participating students completed an Objective Outcome Evaluation Questionnaire at the beginning and the end of the course "Service Leadership" measuring their positive youth development qualities, service leadership qualities and beliefs, as well as life satisfaction. Mixed ANOVA analyses comparing pretest and posttest revealed that student made improvements on all the variables of positive youth development, service leadership, and life satisfaction after taking the course. The positive changes did not vary across subject mode (2-credit-bearing vs. 3-credit-bearing). However, gender differences were found in which males but not females showed positive changes on positive identity, general positive youth development qualities, life satisfaction, self-leadership, and service leadership beliefs. The implications to further service leadership education were discussed.

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Introduction

With the transformation of economic structure from manufacturing orientation (i.e., industrial mode) to service orientation (i.e., postindustrial mode), scholars, business professionals, and educational professionals are increasingly aware of the new demand of leadership qualities under the service economies (1,2). In fact, when conceptualizing effective leadership, "modern" leadership theories have focused on relationship, empowerment, integrity, trust, and service beyond strategic skills (3-6) instead of the inborn and elite nature of leadership. For example, transformational leadership emphasizes that leaders should act as an ethical role model and show individualized consideration toward subordinates (7). Servant leadership advocates striving to meet the highest priority needs of others rather than personal interest (8).

As successful leadership qualities in the service economy are different from those in the industrial economy, Po Chung, the Co-founder of DHL International (Asia Pacific) (9) proposed the idea of service leadership which challenges the notion regarding leadership as a means to obtain fame and wealth. Instead, it regards leadership as a service that satisfies the needs of different parties involved. A successful leader is not only a competent person who is able to provide professional service, but also a moral person who deserves the trust from others and a caring person who is willing to satisfy others' needs. The competence, the moral character and the caring disposition of a leader altogether determine the quality of the service and the effectiveness of one's leadership. In this sense, a holistic development is highly needed in leadership education.

Bearing a mission to bring about a paradigm shift in people's mindset of leadership and nurture a young generation of service leaders, Po Chung together with other academic professionals founded the Hong Kong Institute of Service Leadership and Management (HKI-SLAM) and designed the service leadership curriculum framework (i.e., SLAM framework). With the sponsor of Victor and William Fung Foundation, the Fung Service Leadership Initiative was implemented in eight UGC-funded institutions of Hong Kong, which developed and delivered service leadership education within the SLAM framework. Accordingly, The Hong Kong Polytechnic University (PolyU) has offered a credit-bearing subject for the undergraduate students since the 2013 Spring semester. Besides lecturing, this subject adopts experiential learning, reflective learning, and collaborative learning. The major goal of the current study is to examine the effectiveness of service leadership education in this credit-bearing mode. We used pretest-posttest design to understand the changes of the students who were taking the subject "Service Leadership" at PolyU. Although pretest-posttest design cannot lead to a causal conclusion, it is a typical and frequently used approach to understand the outcome of a program (10,11).

To date, the subject "Service Leadership" was offered to two groups of students with different credits. The 2-credit-bearing subject (28 lecture hours) was offered to students under 3-year-curriculum while the 3-credit-bearing subject (39 lecture hours) was offered to students under 4-year-curriculum. Three differences between these two subjects are noted. First, the 3-credit-bearing subject incorporated English Reading (ER) and Writing (EW) requirement, which is a language component of General Undergraduate Requirement (GUR) of PolyU, and thus the English requirement of the home assignment is higher than that of the 2-credit-bearing subject. Second, with more lecture hours, the 3-credit-bearing subject introduces other modern leadership theories (e.g., transformational leadership, servant leadership, and spiritual leadership), which is missing in the 2-credit-bearing subject. Finally, the 3-credit-bearing subject encourages students

to critically appraise the model of service leadership, and thus, students could discuss the advantages and disadvantages of service leadership. Due to these differences, we were interested in whether the program difference would influence the pretest-posttest changes. Finally, as few previous studies found a gender difference in the effectiveness of leadership program and there were equivocal findings (12-14). Hence, we also explored whether male and female students showed different patterns of changes after taking the same subject.

Methods

Among 366 students taking the subject, 331 students took the pretest while 346 students took the posttest. In total, 316 students completed both the pretest and the posttest, in which 155 students were from the 2-credit subject (male = 65; female = 90; Mean age = 21.23 years, SD = 1.53) and 161 students were from the 3-credit subject (male = 66; female = 92; Mean age = 19.78 years, SD = 1.40). On average, the former was older than the latter, $t(313) = 8.77$, $p < .001$. Students provided individual informed consent before the pretest. The pretest was conducted on and before the third lecture; the posttest was conducted on and after the last third lecture.

Measures
The objective outcome evaluation questionnaire measured three aspects of students (i.e., positive youth development, life satisfaction, and service leadership) in a 6-point Likert scale. First, 10 positive youth development attributes were assessed using items selected and revised from the Chinese Positive Youth Development Scale (15). Three composite scores were used in this study. Cognitive-behavioral competencies include the subscales of cognitive competence, self-determination, and behavioral competence; positive identity includes the subscales of belief in the future and clear and positive identity; general positive youth development qualities include the subscales of emotional competence, social competence, moral competence, resilience, and spirituality. The reliabilities of these three composite scales were good (see Table 1).

Second, life satisfaction was assessed by the five-item Satisfaction with Life Scale (16). This scale was successfully used previously in other Chinese samples (17) and internally consistent in the current sample (see table 1).

Finally, a new scale was created for this subject to measure service leadership qualities and beliefs according to the SLAM framework (18). Service leadership qualities were measured by self-leadership, caring disposition and character strength, and service leadership beliefs refer to the core beliefs of service leadership (e.g., "Leadership is a service for self, others, groups and the society"; "Leadership effectiveness is determined by situational task competencies, character strength and caring ability"). The reliabilities of all these scales were good (see Table 1).

Results

Several mixed ANOVA analyses were conducted to examine time (pretest versus posttest), gender (male versus female) and mode (2-credit versus 3-credit) effects on the indicators of positive youth development, life satisfaction, service leadership qualities and service leadership beliefs, respectively (see table 2). Results showed that pretest-posttest changes were significant in all the indicators, which suggested that students changed in the positive direction after completing the subject on all indicators of positive youth development, life satisfaction, service leadership qualities and service leadership beliefs. However, no interaction effects of program and time were found, indicating that the positive changes did not vary across the old and new undergraduate curriculum. Interestingly, time interacted with gender in the domains of positive identity, general

positive youth development, life satisfaction, self-leadership, and service leadership beliefs. Follow-up analyses adjusted by Bonferroni suggested that male students experienced significant changes in these indicators (ps < .01) while female students showed mild but insignificant trends of positive changes.

Discussion

The objective of this study was to investigate the outcomes of the subject "Service Leadership" at PolyU. The pretest-posttest comparisons clearly indicate that students enhanced their positive youth development, life satisfaction, and service leadership qualities and beliefs after taking this subject. With the collective data from five classes of students, these results provide more convincing evidence than the previous study of a single class (18) about the program effectiveness. Besides, the positive results are congruent with the other evaluation studies based on subjective outcome evaluation (19), qualitative evaluation (20), focus group evaluation (21) and process evaluation (22).

In particular, students' competencies indexed by positive youth development and self-leadership ability were improved and their character such as integrity was also enhanced. They become more caring, empathetic, and attentive to others. In addition, the subject fulfills the goal to bring about a paradigm shift in students' mindset of leadership, as they tended to endorse service leadership beliefs to a greater extent after taking the subject. This finding is important because a leader's practice such as decision-making and problem-solving is affected by his/her leadership beliefs (23).

The enhancement after taking the subject was true for both students of 2-credit-bearing subject and students of 3-credit-bearing subject. Students who took the 2-credit-bearing subject were under the 3-year-curriculum, who are often regarded as more mature physically and psychological than those under the 4-year-curriculum. Our finding suggests that this subject is applicable for the students at different entry levels. Additionally, as no difference between a 28-hour subject and a 39-hour subject was found, future studies should examine the question of optimal teaching hours.

Nevertheless, it is worth noting that the enhancement was more salient among the male students than the female students, especially on positive identity, general positive youth development qualities, life satisfaction, self-leadership, and service leadership beliefs. The current findings are in line with the research findings of Dugan (13) and Dugan and Komives (24) which documented the advantages of female university students at multiple dimensions of the leadership capacities relative to male students. In sharp contrast to the traditional leadership style that requires "masculine qualities" such as authority, power, and self-assertion, the effective leadership style under service economies calls for emotion-skillfulness, cooperation, relation-orientation, empowerment, and mentoring, for which, women might have advantages (25). Obviously, more studies should be conducted to examine how service leadership education is beneficial to students with different genders.

The present findings may have limited generalizability due to several reasons. First, without a control group, the cause-effect relationship between the subject and student change cannot be firmly established. Second, without a follow-up study, this study could not exclude the "honey moon" effect in which students' self-evaluation was boosted right after the class but returned to the original level after a period of time (26). Hence, longitudinal follow-up studies should be

conducted. Finally, this study was only based on students' self-report of performance, which may be different from the observant-report (27). Obviously, teacher-report or peer-report information is needed in future studies.

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Table 1. Means, standard deviations and reliabilities of the variables

Variables	2-credit subject					3-credit subject				
		Male		Female			Male		Female	
	Reliability	Mean	SD	Mean	SD	Reliability	Mean	SD	Mean	SD
Pretest										
1. Cognitive-behavioral competencies	.83	4.42	.56	4.55	.49	.82	4.51	.53	4.53	.46
2. Positive identity	.82	4.46	.70	4.56	.57	.83	4.47	.62	4.45	.64
3. General positive youth development qualities	.75	4.38	.48	4.64	.42	.75	4.39	.46	4.59	.40
4. Life satisfaction	.84	3.97	.78	4.29	.68	.87	4.11	.80	4.21	.78
5. Self-leadership	.79	4.47	.56	4.59	.52	.79	4.35	.56	4.61	.50
6. Caring disposition	.91	4.49	.59	4.85	.52	.87	4.62	.50	4.80	.51
7. Character strengths	.83	4.33	.47	4.56	.42	.86	4.37	.50	4.54	.44
8. Service leadership beliefs	.89	4.59	.73	4.90	.53	.89	4.65	.67	4.85	.56
Posttest										
9. Cognitive-behavioral competencies	.84	4.64	.54	4.64	.45	.85	4.64	.52	4.56	.53
10. Positive identity	.85	4.71	.68	4.60	.64	.81	4.70	.57	4.52	.59
	.76	4.53	.49	4.69	.41	.80	4.57	.45	4.59	.44
11. General positive youth development qualities										
12. Life satisfaction	.87	4.32	.81	4.43	.71	.88	4.52	.77	4.28	.79
13. Self-leadership	.81	4.60	.59	4.68	.49	.76	4.56	.58	4.58	.49
14. Caring disposition	.90	4.65	.62	4.93	.44	.88	4.70	.50	4.81	.53
15. Character strengths	.87	4.48	.56	4.67	.43	.88	4.56	.49	4.62	.47
16. Service leadership beliefs	.93	4.82	.77	4.91	.57	.92	4.83	.60	4.88	.63

Table 2. ANOVA results

Variables	Change		Gender		Mode		Gender*Change		Mode*Change	
	F	Partial η^2	F	Partial η^2	F	Partial η^2	F	Partial η^2	F	Partial η^2
1. Cognitive-behavioral	13.69***	.04	.02	0	.16	0	3.54	.01	1.12	0
2. Positive identity	14.81***	.05	.84	0	1.34	0	5.80*	.02	.26	0
3. General positive youth development qualites	10.05**	.03	12.62***	.04	1.16	0	8.81**	.03	.11	0
4. Life satisfaction	24.31***	.07	.75	0	.01	0	8.10**	.03	0	0
5. Self-leadership	6.10*	.02	6.32*	.02	1.59	.01	4.84*	.02	.10	0
6. Caring disposition	5.18*	.02	19.48***	.06	.22	0	1.71	.01	.45	0
7. Character strengths	16.15***	.05	11.96**	.04	.07	0	1.60	.01	.47	0
8. Service leadership beliefs	6.19*	.02	7.56**	.02	.20	0	5.64*	.02	.07	0

*p<.05; **p<.01; ***p<.001