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The Impact of Service-Learning on the Development of Servant Leadership

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The Impact of Service-Learning on the Development of Servant Leadership

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Abstract

This study examines the impact of domestic and international service-learning on developing servant leadership among young adults engaged in Jesuit education and social ministry programs in Australia. Drawing on data from three institutions—two Jesuit secondary colleges and a Jesuit social ministry—the research analyzed seven service-learning experiences of varying durations and locations, including the Northern Territory (Australia), Nepal, Thailand, Cambodia, and the Philippines. Using a quasi-experimental design, 60 participants completed the servant leadership behavior scale (SLBS; Sendjaya et al., 2008), assessing growth across six key servant leadership attributes: voluntary subordination, covenantal relationships, authentic self, responsible morality, transforming influence, and transcendental spirituality. This scale is underpinned by Greenleaf's servant leadership theory, which seeks to place those served at the center of leadership praxis and decision-making. The paired *t* tests revealed statistically significant growth in servant leadership attributes, with medium-to-large effect sizes (overall Cohen's *d* = 0.62). Short- and long-term service-learning experiences fostered meaningful leadership development, with international programs demonstrating slightly stronger effects than domestic placements. These findings highlight the transformative potential of service-learning in cultivating ethically driven, socially responsible leaders. The study offers practical insights for educational institutions seeking to integrate intentional, reflective service-learning programs to develop the next generation of servant leaders.

Keywords: *service-learning, servant leadership, youth leadership development, community-engaged learning*

El impacto del aprendizaje y servicio en el desarrollo del liderazgo de servicio

Antony Sindone, Sean Kearney y Thuan Thai

Resumen

Este estudio examina el impacto del aprendizaje y servicio, nacional e internacional, en el desarrollo del liderazgo de servicio entre adultos jóvenes que participan en programas de educación jesuita y ministerio social en Australia. A partir de datos recopilados en tres instituciones—dos colegios jesuitas de nivel secundario y un ministerio social jesuita—la investigación se basó en el análisis de siete experiencias de aprendizaje y servicio de distinta duración y ubicación, incluyendo el Territorio del Norte (Australia), Nepal, Tailandia, Camboya y Filipinas. Mediante un diseño cuasi-experimental, 60 participantes completaron la Escala de Comportamiento de Liderazgo Servicial (SLBS; Sendjaya et al., 2008), por sus siglas en inglés, que evalúa el crecimiento en seis atributos claves del liderazgo servicial: subordinación voluntaria, relaciones de alianza, autenticidad personal, moralidad responsable, influencia transformadora y espiritualidad trascendental. Esta escala se fundamenta en la teoría del Liderazgo Servicial de Greenleaf, que busca situar a las personas a las que se sirve, en el centro de la práctica y la toma de decisiones de liderazgo. Las pruebas *t* para muestras relacionadas revelaron un crecimiento estadísticamente significativo en los atributos del liderazgo servicial, con tamaños de efecto de moderados a grandes (Cohen's *d* general = 0.62). Las experiencias de aprendizaje y servicio, tanto de corta como de larga duración, promovieron un desarrollo significativo del liderazgo, observándose efectos ligeramente mayores en los programas internacionales en comparación con los nacionales. Estos resultados destacan el potencial transformador del aprendizaje y servicio para cultivar líderes éticamente comprometidos y socialmente responsables. El estudio ofrece lineamientos prácticos para instituciones educativas interesadas en integrar programas de aprendizaje y servicio intencionados y reflexivos, con el fin de formar a la próxima generación de líderes serviciales.

Palabras clave: *Aprendizaje y servicio, liderazgo servicial, desarrollo de liderazgo juvenil, aprendizaje basado en la comunidad*

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Introduction

A period marked by global conflict, social inequities, and institutional mistrust necessitates a reimagining of leadership. How do we cultivate leaders who are not only effective but also deeply committed to serving others? Robert K. Greenleaf's theory of servant leadership offers a compelling alternative to those leadership styles centered on command and control. With its focus on selfless service and flourishing of others, it provides a powerful theoretical framework for undertaking service-learning. Both concepts, rooted in the transformative power of service, promotion of the common good, and the development of others, have the potential to shape individuals who participate in service-learning experiences, marked by respect, reciprocity, relevance, and reflection (Butin, 2003). Despite their natural synergy, limited research has explored how service-learning experiences specifically influence the development of servant leadership attributes (Norman, 2018).

In light of Greenleaf's theory, this study investigates the impact of service-learning on servant leadership development. By measuring key servant leadership dimensions (Sendjaya et al., 2008) before and after diverse service-learning interventions, this study aims to fill a critical gap in the literature and provide actionable insights for educators and institutions seeking to implement service-learning in developing the next generation of servant leaders.

Background

Service-Learning

Service-learning was coined in the United States in the 1960s and has rapidly risen over the decades with diverse meanings and manifestations. Within contemporary literature, it is understood as a form of experiential pedagogy, where both the service and the learning are intertwined. Influenced by differing educational theories (Dewey, 1933; Freire, 1972a), various models and typologies were developed (Butin, 2003; Kiely, 2005; Kolb, 1984; Sigmon, 1994), sharing a common understanding that well-designed and appropriately structured service experiences can be of mutual benefit to service partners within a reciprocal and respectful environment. Moreover, these service experiences can present opportunities for transformational growth, including promoting servant leadership skills.

The concept of service-learning traces its origins to John Dewey, whose principles of experience, inquiry, and reflection heavily influenced its evolution. Dewey's educational philosophy emphasized experiential learning that fosters democratic values and societal responsibility. His criteria for educative experiences—interest, intrinsic value, curiosity-driven learning, and long-term development—remain foundational (Dewey, 1933). Kolb's experiential learning cycle, another cornerstone, incorporates concrete experience, reflection, conceptualization, and experimentation as a transformative pedagogy. However, critiques of Kolb's framework highlight its potential overemphasis on individual transformation at the expense of social impact (Crabtree, 2008). Freire's (1972b) critical pedagogy further shapes service-learning by stressing reflective action and mutual empowerment, fostering a critical awareness of social inequities. Scholars like Butin (2003) and Kiely (2005) extended these theories, emphasizing the transformative potential of service-learning through typologies and systematic models, enabling a nuanced understanding of individual and social transformation.

Over time, scholars and practitioners have increasingly emphasized the need for more reciprocal, ethically grounded partnerships in service-learning contexts. In this context, the term community-engaged learning (CEL) has emerged to better identify those projects that emphasize reciprocal and collaborative community partnerships, critical reflection, and enriched student learning experiences (Kaliappen, 2024; Nguyen & Condry, 2023). CEL frameworks more deliberately center mutuality and critical engagement, principles that resonate strongly with servant leadership.

Service-Learning Efficacy

It has been well documented that service-learning has measurable benefits across various indicators (Bringle & Hatcher, 2010). Eyler et al. (2001) conducted the most comprehensive reviews of the effects of

service-learning. The authors report various outcomes across personal growth, communication skills, promotion of intercultural understanding, social responsibility, and academic outcomes. By participating in service-learning, students not only gain an increased understanding of the learning outcomes but also experience personal growth, social development, and communal responsibility (Tucker & McCarthy, 2001; Waldstein & Reither, 2001). Increased self-efficacy, enhanced intra- and interpersonal development, cultural awareness and tolerance, and stronger analytical and problem-solving skills were also promoted (Eyler & Giles, 1999). Astin et al.'s (2000) research demonstrated that service participation had statistically significant benefits across 11 outcomes, including academic performance, values development, self-efficacy, and leadership.

There is also growing evidence of an impact on moral behavior and spiritual development (Afzal & Hussein, 2020; Brandenberger, 2023; Casebeer & Mann, 2022; Popok, 2023). Boss's (1994) study of the effects of service on ethics students revealed that exposure to social disequilibrium (resulting from community service) had a more significant impact on moral development than cognitive disequilibrium brought about by exposure to learning materials alone. Service-learning has also been identified as an effective means of encouraging the spiritual growth of young people, personal transformation, and a commitment to serve others (Koth, 2003; Louie-Badua & Wolf, 2008; Strain, 2007). There is overwhelming empirical evidence for service-learning efficacy in the development of the whole person. The extensive benefits include participants' academic, personal, moral, and spiritual growth.

Servant Leadership

The contemporary concept of servant leadership originates in Robert K. Greenleaf's writings. While elements of servant leadership theory can be traced back to the writings of Aristotle, Lao-Tsu, and the New Testament, it was Greenleaf's (1970) essay, "The Servant as Leader", that servant leadership began to gain wider attention. Greenleaf (1970) asserted that, above all else, leaders should *serve first*, asserting that "The servant leader is servant first . . . It begins with the natural feeling that one wants to serve first. Then conscious choice brings one to aspire to lead" (p. 7). His ideas would inspire a move away from transactional, authoritative, command-and-control methods of leading by inverting the traditional hierarchical pyramid, formalizing historical notions of service and sacrifice, and placing followers' needs above self-ambition.

Since the 1990s, servant leadership research has focused primarily on the conceptual development of servant leadership. Significant studies of servant leadership behaviors were identified, leading to the development and eventual acceptance of a distinctive servant leadership theory. Several empirical instruments have been reported in the literature, including the Servant Leadership Questionnaire (Barbuto & Wheeler, 2006), the General Measure of Servant Leadership (Ehrhart, 2004), the Organizational Leadership Assessment (Laub, 1999), and the Servant Leadership Profile (Page & Wong, 2000). Subsequently, the servant leadership behavior scale (SLBS) (Sendjaya et al., 2008) was developed, which included two significant dimensions—responsible morality and transcendental spirituality. These two elements are crucial to the Ignatian worldview and provide a unique opportunity to measure these servant leader attributes, not captured in the other scales.

Servant Leadership and Service-Learning

This research is underpinned by a theoretical framework based on Greenleaf's concept of the servant leader—one who places the needs of others above their own and those of the institution. Greenleaf's seminal essays have, over time, created a distinctive leadership movement that continues to influence both research and leadership literature. In "A Systematic Review and Call to Research," Eva et al. (2019) explore 285 peer-reviewed servant leadership articles spanning 2008–2018 and 39 countries. The authors assert that servant leadership is both highly effective and empirically distinct from ethical and transformational leadership theory. For this reason, service-learning should provide the ideal opportunity to develop those attributes inspired by Greenleaf's theory.

Given the complementary nature of service-learning and servant leadership, there have been attempts to study their intersection, though findings vary due to methodological and contextual differences. Kyker (2003) was among the first to examine this relationship using the PsychoMatrix Spirituality Inventory. He concluded that spiritual development, service-learning, and servant leadership are interconnected; however, the lack of a dedicated servant leadership measure limited the study's scope. Roberts (2006) employed the Servant Leadership Profile by Page and Wong (2000) to compare 60 students who completed service-learning projects with a control group. The findings suggested that service-learning enhances servant leadership traits, particularly integrity, vision, influence, and community building. Leever et al. (2006) corroborated this conclusion in a quantitative study where pre- and posttest results showed marked improvements in servant leadership attributes. Further supporting these conclusions, Stewart (2012) examined 160 students and found significant growth in three servant leadership dimensions: altruistic calling, emotional healing, and persuasive mapping. As a result, Stewart (2012) argued that service-learning and servant leadership are complementary frameworks capable of fostering transformative experiences. However, he also noted limitations in his study, such as duration and inadequacies in the Service-Learning Questionnaire (Barbuto & Wheeler, 2006), which was used in the study. Meinecke (2014) echoed Stewart's concerns regarding the Service-Learning Questionnaire, highlighting its limitations in detecting significant growth in servant leadership attributes. Meinecke (2014) suggested that a qualitative or mixed-methods approach could yield richer insights. More recently, Robinson and Magnusen (2024) conducted a 6-week qualitative study and concluded that service-learning is an effective method for cultivating servant leadership attributes. However, the small sample size, lack of triangulation, and use of predetermined themes limited the study's broader applicability.

Despite varying results, these studies highlight both the promise and complexity of using service-learning to develop servant leadership qualities. The research illustrates that service-learning can enhance attributes such as empathy, integrity, community building, and ethical leadership; however, limitations such as small sample sizes, short durations of service-learning programs, and reliance on quantitative self-assessment tools hinder the depth and robustness of findings.

While the existing literature offers valuable insights, it also underscores the need for further research, particularly regarding empirical evidence that quantifies this relationship within diverse contexts. This study addresses this gap by employing a quasi-experimental design to measure the impact of service-learning on servant leadership development, focusing on six key attributes established in the SLBS.

Methodology

Among 16 available quantitative measures of servant leadership, Eva et al. (2019) suggested that only those created by Liden et al. (2008), Sendjaya et al. (2008, 2019), van Dierendonck and Nuijten (2011), and van Dierendonck et al. (2017) "had gone through the rigorous process of construction and validation" (p. 116). From the three instruments recommended in Eva et al.'s (2019) extensive review, Sendjaya et al.'s (2008) 35-question SLBS was chosen as the most appropriate instrument for this research in terms of content validity, internal consistency reliability, and unidimensionality. Two changes were made to the SLBS, with permission from the original author: The Likert scale was altered from 5 to 6 points, which aimed to improve overall reliability (Chomeya, 2010; Taherdoost, 2022); and the change of the scale from an agreement scale to a frequency scale aimed to more accurately report changes in behavior over time (Tong et al., 2020).

Data Collection

The study examined three Jesuit institutions from 2022 to 2024. Two of these were all-male high schools (Institutions A and B), and the third (Institution C) was a Jesuit social ministry. Given the nature of the study, purposive sampling was used to recruit participants from the institutions in question. Sampling of this kind seeks saturation (Kerr et al., 2010). Across the whole case, the age of volunteers spanned from 16 to 21 years of age and comprised young women ($n = 12$) and men ($n = 48$) who applied to participate in a service-learning experience. The gender imbalance was the result of the two secondary colleges being all-

boys schools, and Jesuit alumni undertaking the majority of Institution C’s immersions/in-country placements.

The 29 participants from Institutions A and B ranged from 16 to 18 years of age. The length of their immersions in the Philippines and Cambodia, respectively, spanned 2.5–3 weeks.

The third institution (C) was an Ignatian social ministry comprising 19 male and 12 female university students (17–21 years of age). Their service experiences ranged from 3 weeks to 12 months.

Between the three institutions, seven different service-learning experiences were undertaken. These were organized into three UoA. UoA1 included the two high school immersions offered by Institutions A and B (Philippines and Cambodia). UoA2 focused on longer-term service placements (Nepal and Thailand) provided by Institution C, while UoA3 involved 3-week immersions in Nepal and the Northern Territory (Australia) from the same institution. Participants included young men and women who volunteered for service-learning experiences ranging from 3 weeks to 12 months (Table 1).

Table 1.

Demographics of Participants

Units of analysis	Institution	Location	Duration	Total number of participants	Number of participants surveyed
1	A	Philippines	3 weeks (Dec 2023)	16	16
	B	Cambodia	2.5 weeks (Dec 2023)	16	13
2	C In-country placements	Nepal	3 months (Jan–Mar 2023)	3	1
		Thailand	6–12 months (Jan–Dec 2023)	15	14
3	C Immersion	Nepal	3 weeks (Jan 2023)	8	7
		Nepal	3 weeks (Jan 2024)	6	6
		Northern Territory	4 weeks (Jan 2023)	3	3
Total				67	60

Data Analysis

Quantitative reporting was structured around Sendjaya’s six dimensions (attributes) of servant leadership: *voluntary subordination, authentic self, covenantal relationships, responsible morality, transforming influence, and transcendental spirituality*. Descriptive statistics were utilized to compare experiences before and after the service (referred to as “pretest” and “posttest,” respectively), noting changes in the mean in the overall case, service-learning experiences (referred to as unit of analysis [UoA]), and dimensional levels.

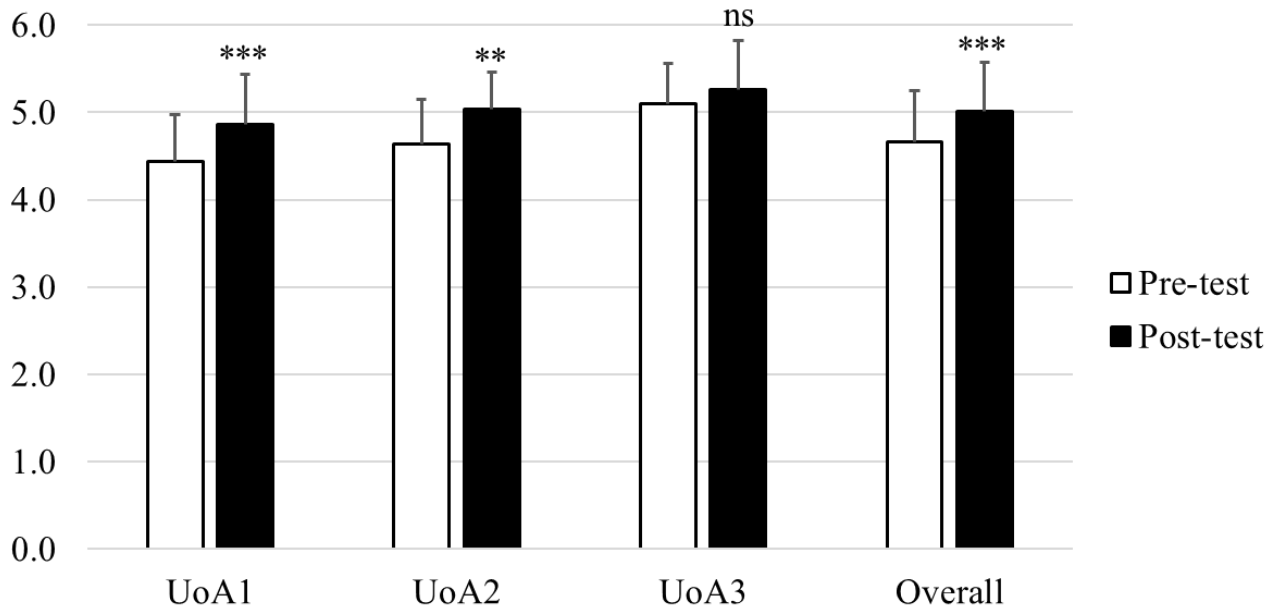
Data were processed and analyzed using Microsoft Excel version 2502. Statistical analysis was conducted using the Data Analysis package in Microsoft Excel. Statistical significance was determined using a paired *t* test to compare the pre- and posttest means of the survey results from the SLBS-35. A *p* value < .05 was considered statistically significant. An effect size (Cohen’s *d*) of ≤ 0.2 is considered small, 0.2 < *d* < 0.8 is considered medium, and *d* ≥ 0.8 is considered significant.

Results

Figure 1 shows that participants exhibited statistically significant growth in servant leadership attributes following the service-learning experience (*p* < .001). UoA1 and UoA2 showed statistically significant growth following the service-learning experience (*p* < .001 and *p* < .01, respectively). UoA3 was not statistically significant (*p* = .290).

Figure 1.

Participants’ Pre- and Post-Service-Learning Experience Rating



Note. The mean of participants’ pre- and posttest ratings was compared using a paired *t* test. ***p* < .01, ****p* < .001, and ns = nonsignificant; *UoA* = unit of analysis.

Across the case study, the 6-point SLBS gained an average of +0.33 points overall, with a mean pretest score of 4.72 and a posttest score of 5.05 (Table 2). The effect size for the overall case was medium (*d* = 0.62). The mean survey response for UoA1 increased from 4.43 to 4.87. UoA1 had the largest net gain in the mean difference between the three units (+0.44). The mean difference for UoA2 was +0.36, increasing from 4.66 to 5.02. The effect size for UoA2 was large (*d* = 0.84). For UoA3, the mean difference was +0.16, increasing from 5.10 to 5.26. The effect size for UoA3 was medium (*d* = 0.32).

Table 2.

Participants’ Overall Case Rating Pre- and Post-Service-Learning Experience

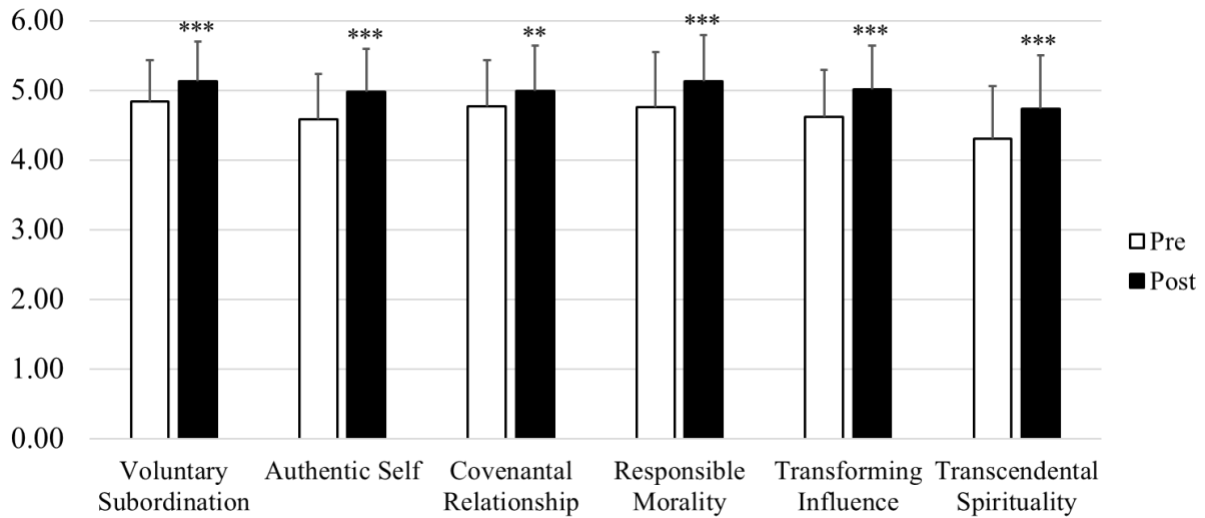
UoA	Mean (pretest)	SD (pretest)	Mean (posttest)	SD (posttest)	Mean difference	<i>p</i> value	Cohen’s <i>d</i>
1	4.43	0.55	4.87	0.58	0.44	<.001	0.77
2	4.66	0.49	5.02	0.41	0.36	<.01	0.84
3	5.10	0.44	5.26	0.54	0.16	.279	0.32
Overall	4.72	0.49	5.05	0.51	0.33	<.001	0.62

Note. *UoA* = unit of analysis

Data analysis according to dimensions reveals statistically significant growth across all six servant leadership attributes (Figure 2). The mean difference for *covenantal relationship* showed the smallest growth (+0.22), and *transcendental spirituality* showed the most growth (+0.42) (Figure 3). The effect size for all six dimensions was medium ($0.33 \leq d \leq 0.62$; Table 3). An exploration at the UoA level reveals a more nuanced picture of the effect of the service-learning experience of the three cohorts.

Figure 2.

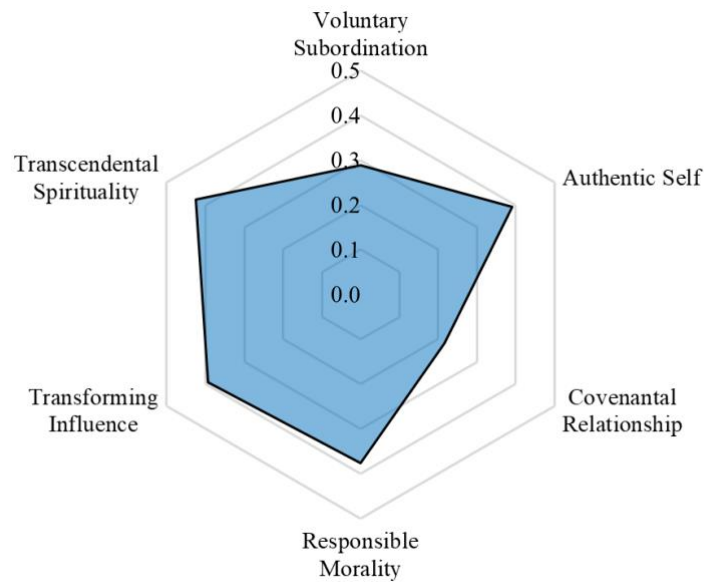
Participants' Rating Based on the Six Dimensions of the SLBS



Note. The mean of participants' pre- and posttest rating based on the six dimensions of the SLBS was compared using a paired *t* test. ***p* < .01 and ****p* < .001. SLBS = servant leadership behavior scale.

Figure 3.

Change in Servant Leadership Attribute Across the Overall Case



Note. The difference between pre- and posttest mean according to Sendjaya et al.'s (2008) six dimensions of the SLBS. SLBS = servant leadership behavior scale.

Table 3.

Case Rating of SLBS's Six Dimensions of Servant Leadership Pre- and Post-Service-Learning Experience

Servant leadership dimension (theme)	Mean (pretest)	SD (pretest)	Mean (posttest)	SD (posttest)	Mean difference	Cohen's <i>d</i>
Voluntary subordination	4.93	0.58	5.17	0.68	0.24	0.41
Authentic self	4.63	0.62	5.04	0.60	0.41	0.66
Covenantal relationships	4.83	0.68	5.03	0.63	0.20	0.29
Responsible morality	4.82	0.77	5.13	0.70	0.31	0.40
Transforming influence	4.70	0.58	5.05	0.63	0.35	0.60
Transcendental spirituality	4.37	0.67	4.79	0.75	0.42	0.63

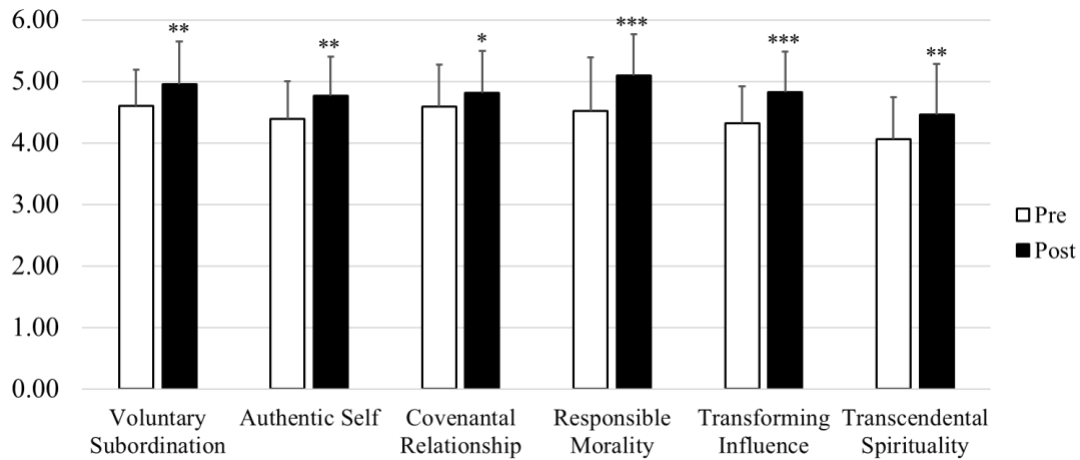
Note. SLBS = servant leadership behavior scale

Unit of Analysis 1

UoA1 comprised 29 out of 32 volunteers who completed the 2023 Philippines (“A”) and Cambodia (“B”) immersions, representing a survey response rate of 91%. The survey data were further explored on a thematic level to investigate growth using Sendjaya et al.’s (2008) six dimensions. There was a positive difference in the mean and a statistically significant difference in all six dimensions (Figure 4).

Figure 4.

UoA1 Rating Based on the Six Dimensions of the SLBS



Note. The mean of UoA1 pre- and posttest rating based on the six dimensions of the SLBS was compared using a paired *t* test. **p* < .05, ***p* < .01, and ****p* < .001. SLBS = servant leadership behavior scale.

The mean difference in pre- and post-immersion responses ranged from +0.25 (*covenantal relationships*) to +0.60 (*responsible morality*). *Authentic self* (*d* = 0.62) and *transforming influence* (*d* = 0.60) had the largest effect sizes, suggesting the effectiveness of the service experiences (Philippines and Cambodia) in positively influencing self and others. Results suggest that these immersion experiences not only built servant leadership capacity overall, but there was also growth within each of the six dimensions (Table 4).

Table 4.*UoA1 Rating of SLBS's Six Dimensions of Servant Leadership Pre- and Post-Service-Learning Experience*

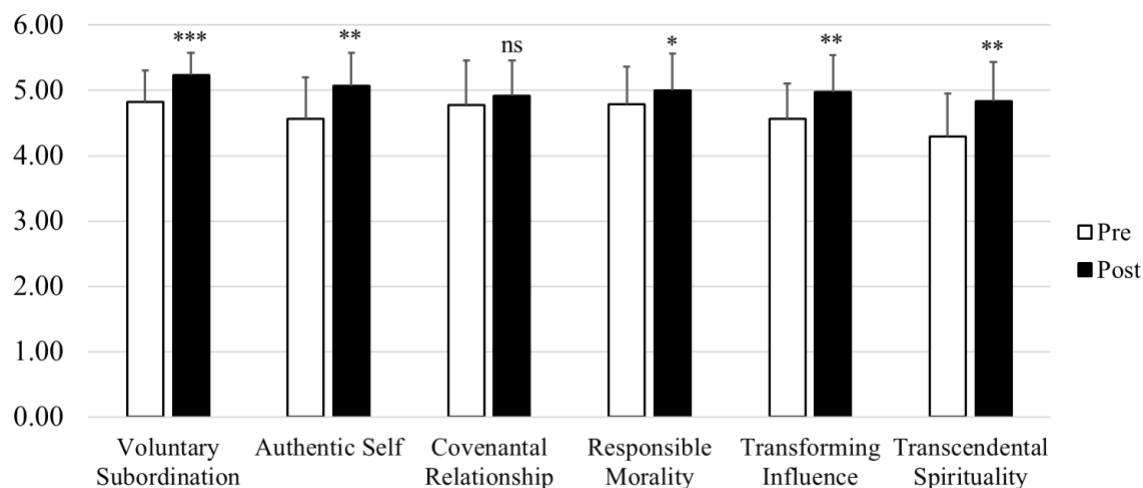
Servant leadership dimension (theme)	Mean (pretest)	SD (pretest)	Mean (posttest)	SD (posttest)	Mean difference	Cohen's <i>d</i>
Voluntary subordination	4.61	0.58	4.99	0.58	0.38	0.49
Authentic self	4.39	0.61	4.78	0.64	0.39	0.62
Covenantal relationships	4.60	0.68	4.84	0.68	0.25	0.33
Responsible morality	4.52	0.87	5.12	0.67	0.60	0.52
Transforming influence	4.32	0.60	4.86	0.66	0.54	0.60
Transcendental spirituality	4.05	0.68	4.52	0.82	0.47	0.56

Note. SLBS = servant leadership behavior scale; UoA = unit of analysis

Unit of Analysis 2

UoA2 comprised 15 of the 20 participants who completed Institution C's Nepal and Thailand in-country placements, spanning 3-12 months. The survey data represented a response rate of 75%.

As with UoA1, the survey data were explored on a dimensional level to investigate growth using the six dimensions of the SLBS. There was a positive difference in the mean in all six dimensions for UoA2, where five out of six attributes were statistically significant (Figure 5). The mean difference in pre- and post-immersion responses ranged from +0.14 (*covenantal relationships*) to +0.53 (*transcendental spirituality*). *Transcendental spirituality* was the dimension rated the lowest in the pretest, providing greater opportunity for growth as a result. The dimension of *authentic self* increased by +0.50 on the 6-point scale, marking another dimension with substantial growth. A large effect size was observed for two of the six dimensions, with Cohen's $d = 0.85$ for *voluntary subordination* and $d = 0.82$ for *transcendental spirituality*. *Authentic self* at $d = 0.78$ and *transforming influence* at $d = 0.75$ demonstrated a medium-large effect size (Table 5).

Figure 5.*UoA2 Rating Based on the Six Dimensions of the SLBS*

Note. The mean of UoA2 pre- and posttest rating based on the six dimensions of the SLBS was compared using a paired *t* test. * $p < .05$, ** $p < .01$, *** $p < .001$, and ns = nonsignificant; SLBS = servant leadership behavior scale.

Table 5.

UoA2 Results for the Six Dimensions of the SLBS

Servant leadership dimension (theme)	Mean (pretest)	SD (pretest)	Mean (posttest)	SD (pretest)	Mean difference	Effect size <i>d</i>
Voluntary subordination	4.83	0.48	5.24	0.34	0.41	0.85
Authentic self	4.57	0.64	5.07	0.51	0.50	0.78
Covenantal relationships	4.78	0.69	4.92	0.53	0.14	0.20
Responsible morality	4.79	0.57	5.00	0.57	0.21	0.37
Transforming influence	4.56	0.55	4.97	0.57	0.41	0.75
Transcendental spirituality	4.30	0.65	4.83	0.60	0.53	0.82

Note. SLBS = servant leadership behavior scale; UoA = unit of analysis

Interestingly, the *SD* was reduced in the post-immersion survey in four out of six dimensions, suggesting greater homogeneity in response to the long-term placement. With five out of six dimensions reporting statistically significant growth in the mean difference, the data suggest that these service-learning placements promoted servant leadership behaviors.

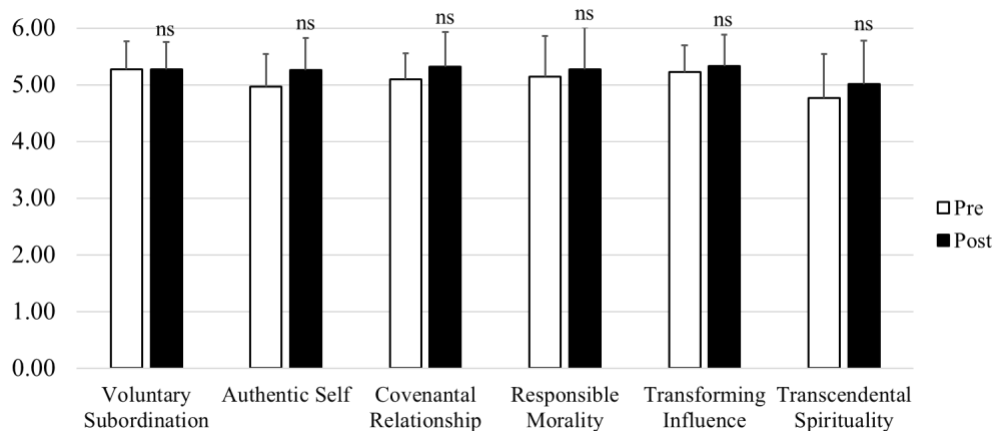
Unit of Analysis 3

UoA3 comprised 16 of 17 volunteers across three separate service-learning experiences, representing a survey response rate of 94%. These included immersions in Nepal in 2023 (seven participants) and 2024 (six participants) and the Northern Territory, Australia (three participants).

There was a positive difference in the mean of five out of six dimensions, but none of these were statistically significant (Figure 6). The mean difference in pre- and post-immersion responses ranged from -0.07 (*voluntary subordination*) to $+0.32$ (*authentic self*). The most notable increase was in *authentic self*, followed by *transcendental spirituality* (Table 6). It is unclear why *voluntary subordination* registered negative growth in UoA3. A possible explanation could be related to students hitting the “service ceiling” (Artale, 2001; Root et al., 2002), with four of the 16 participants having already completed a substantive immersion in high school and two participants living at Institution C’s residential facility. Notably, this dimension had the highest pretest mean among all three UoA, at 5.35. This left little room for growth for volunteers already highly motivated to serve.

Figure 6.

UoA3 Rating Based on the Six Dimensions of the SLBS



Note. The mean of UoA3 pre- and posttest rating based on the six dimensions of the SLBS was compared using a paired *t* test. ns = nonsignificant; SLBS = servant leadership behavior scale; UoA = unit of analysis.

Table 6.

UoA3 Results for the Six Dimensions of the SLBS

Servant leadership dimension (theme)	Mean (pretest)	SD (pretest)	Mean (posttest)	SD (pretest)	Mean difference	Effect Size <i>d</i>
Voluntary subordination	5.35	0.58	5.28	0.68	-0.07	-0.12
Authentic self	4.94	0.61	5.26	0.64	0.32	0.52
Covenantal relationships	5.1	0.68	5.32	0.68	0.22	0.32
Responsible morality	5.14	0.87	5.28	0.67	0.14	0.16
Transforming influence	5.22	0.60	5.33	0.66	0.11	0.18
Transcendental spirituality	4.77	0.68	5.02	0.82	0.25	0.37

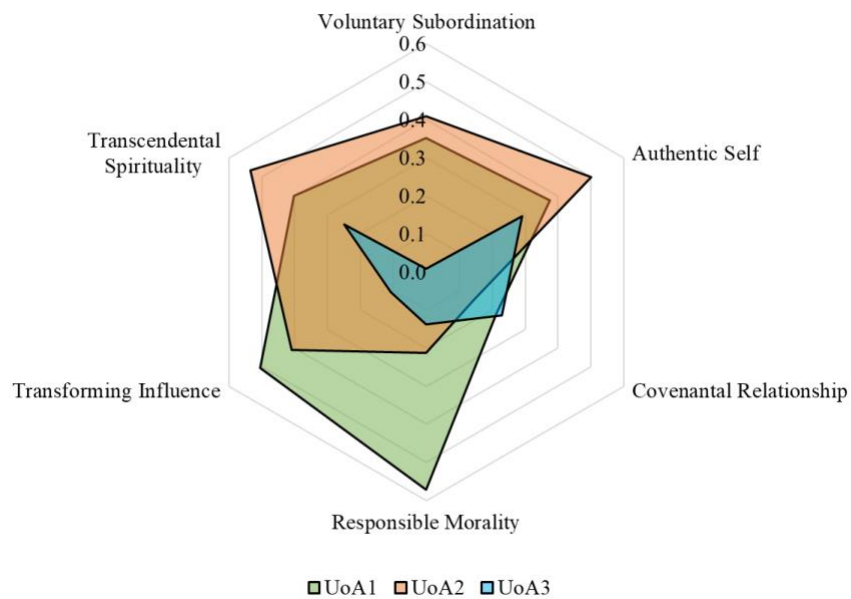
Note. SLBS = servant leadership behavior scale; UoA = unit of analysis

Comparison between UoA

Findings indicate statistically significant growth in servant leadership across participants engaged in all seven service-learning programs when viewed as a combined single case (see Figure 1). Overall, participants showed a positive mean difference between pre- and postexperience scores (Figure 7), with variations linked to differences in participant age, prior experience, and the nature and duration of each program.

Figure 7.

Change in Servant Leadership Attributes between UoA1, UoA2, and UoA3



Note. A comparison of the mean difference between pre- and posttest ratings based on the six dimensions of the SLBS of the three UoA. UoA = unit of analysis.

UoA1 exhibited the most notable growth (+0.44). Participants were the youngest cohort, with lower pretest scores, allowing for greater potential development. Despite being the shortest duration, UoA1's intense immersion exposed participants to physically, emotionally, and spiritually demanding experiences. This, combined with regular reflection through journaling and group discussions, facilitated transformative growth (Kiely, 2005; Mezirow, 2000). UoA2 also showed significant growth (+0.36, $p < .01$). These longer-term placements (3-12 months) involved extended service in remote communities, presenting sustained challenges and opportunities for leadership development. Though the pre-immersion scores were higher, suggesting a "service ceiling" (Artale, 2001; Root et al., 2002), participants benefited from the influence of role models and reflective practices, contributing to their servant leadership development. UoA3 demonstrated the least growth (+0.16) and did not reach statistical significance ($p = .279$). This group included participants with extensive prior service-learning experience, contributing to high pretest scores and reduced potential for further measurable growth. Domestic placements (Northern Territory, Australia) appeared to provide less cognitive dissonance than international settings, limiting transformative outcomes.

Across all UoA, *voluntary subordination* increased, particularly in UoA1 and UoA2 ($p < .01$ and $p < .001$, respectively). This dimension reflects a core tenet of servant leadership, a willingness to serve others before self (Greenleaf, 1970; Sendjaya, 2015), and was reinforced through exposure to challenging environments, reflective practice, and positive role modeling (Kouzes & Posner, 2024). *Authentic self* showed the second-largest average increase (+0.41, $p < .001$), marked by heightened self-awareness and integrity. *Covenantal relationships* exhibited the smallest overall growth (+0.20, $p < .001$), with statistically significant gains only in UoA1. Participants may have already possessed high openness and relational capacity levels, limiting measurable development (Chiva-Bartoll et al., 2020). *Responsible morality* increased by +0.31 ($p < .001$), particularly among UoA1 participants. Growth was attributed to structured reflection and role modeling within intentional communities, aligning with prior findings that moral development is fostered by values-based reflection and community engagement (Hatcher et al., 2004; Strain, 2005).

Transformative experiences, critical reflection (Murphy & Rasch, 2010), and exposure to authentic leaders fostered growth in this dimension, particularly in UoA1 and UoA2. *Transforming influence*, the capacity to positively impact others, grew by +0.35 overall, with significant gains in UoA1 (+0.54) and UoA2 (+0.41). Growth in this dimension reflects servant leadership's emphasis on empowering followers (Greenleaf, 2002) and aligns with literature on the leadership potential of service-learning (Eyler et al., 2001; Foli et al., 2014).

Finally, *transcendental spirituality* exhibited the highest average increase (+.42), particularly in UoA2. Faith-based service-learning experiences and prolonged engagement in intentional communities fostered deep spiritual growth (Barrett, 2016; Helm-Stevens et al., 2018).

Overall, more notable growth was associated with younger participants, less prior experience, and experiences that provided cognitive dissonance and structured reflection. These findings underscore the value of intentional program design in maximizing the transformative potential of service-learning.

Discussion

The findings of this study demonstrate that service-learning experiences significantly contribute to the development of servant leadership attributes, as identified in the writings of Greenleaf and those like Sendjaya et al. (2008) who have been inspired by his work. The statistically significant growth across all six servant leadership dimensions ($p < .001$) and medium effect size ($0.33 \leq d \leq 0.62$) suggests that both short-term immersions and long-term placements can foster transformative servant leadership qualities. These results align with Greenleaf's theoretical framework and more recent conceptual understandings as proposed by Sendjaya et al. (2008).

Variation Across UoA

Differences in growth between UoA highlight the influence of contextual factors. UoA1, comprising younger participants in intense, short-term immersions, exhibited the most substantial growth. This suggests that initial exposure to dissonant, challenging environments can be highly impactful, particularly

when coupled with structured reflection. The secondary school immersions were also marked by lengthy preparations in advance of departure, which included the rationale for the service experience, a detailed exploration of the historical, socioeconomic, and religious context of the destination country (Philippines, Cambodia). In-country, both schools spent each evening engaged in private and communal reflection based on individual completion of the reflection booklet provided, followed up by group discussions and the Ignatian Awareness Examen (a spiritual practice in which individuals reflect on their day by engaging in a series of predetermined steps). Although UoA1 was the briefest of service-learning experiences, it was also the most intense, with the youngest set of volunteers exposed to a rapid series of physically, emotionally, and spiritually demanding situations that created the level of dissonance required to bring about transformation (Kiely, 2005; Mezirow, 2000).

UoA2 participants engaged in long-term placements also demonstrated significant growth, likely due to sustained immersion and deeper relational engagement. While preparation was more limited in comparison with UoA1 participants, and reflection was more self-directed, the length of the placement still seemed to create similar results. This may align with theories of situated learning (Lave & Wenger, 1991), where extended engagement in situ fosters deep relational learning. Service role models within the local community also supported servant leadership growth through situated learning and possibly a pseudo-mentorship. The documented growth could reflect a more internalized transformation, whereby values and behaviors become ingrained over time. Although there was a documented change, it should be noted that these students' mean rating on the servant leadership scale pre-immersion was higher, thus reducing the growth potential and suggesting a service ceiling (Artale, 2001; Root et al., 2002).

UoA3's nonsignificant growth could be explained by a short preparation, self-directed reflection (domestic immersion), and a lack of service opportunities (Nepal immersion). Another possibility may be a ceiling effect, where participants' prior service-learning experiences have limited potential for further development. While service-learning duration was similar to UoA1, the participants were older and had more exposure to experiences, which may have resulted in less dissonance and arguably less transformation. Another possible explanation is that the service-learning undertaken by UoA3 participants lacked the same cognitive and emotional challenge in the form of service as the other groups, thereby reducing its transformational impact.

Implications

In his essay "*The Institution as Servant*" (Greenleaf, 1970), Greenleaf explores the potential for institutions like schools and universities to encourage civic responsibility within servant leaders who seek the common good. For Greenleaf, "caring for persons, the more able serving the less able, is the rock upon which a good society is built." (p.4).

The desire to serve others willingly is the essence of voluntary subordination and, ultimately, servant leadership. The data suggest that an increased desire to subordinate oneself directly results from the volunteers' service-learning experiences. Exposure to new and challenging environments created dissonance for transformation (Kiely, 2005; Mezirow, 2000). Structured and informal reflection allowed volunteers to process this experience (Mitchell, 2023), and modeling by leaders and service partners reinforced this desire to serve (Jenkins & Sheehy, 2022; Kouzes & Pozner, 2024).

Living and more authentically and honestly and striving for transparency are core motivations of servant leaders (Greenleaf, 2002; Lemoine et al., 2019), and this was reflected in the results. Several reasons could explain this increase in authenticity. Service-learning activities place new demands on volunteers physically, emotionally, and spiritually. Engagement with the marginalized in the form of teaching and house building and exposure to various communities needing support can stimulate transformation (Kiely, 2005). Critical reflection (via journaling, group discussions, and the Ignatian Examen) could have also catalyzed growth. Engagement with authentic leaders may have modeled authentic leadership, creating a culture of integrity and transparency. The interplay of these and other factors contributes to greater insight into the self and a commensurate increase in authenticity.

Transforming influence is the essence of servant leadership and refers to the positive impact leaders can have if they prioritize the needs of others. Greenleaf (1977, p. 27) challenged leaders to consider if “while being served, [followers] become healthier, wiser, freer, and more autonomous, more likely themselves to become servants?”. The growth in the dimension of transforming influence is consistent with the literature, recognizing the value of service-learning experiences to build leadership capacity (Foli et al., 2014; Sabbaghi et al., 2013).

Growth in transcendental spirituality is one of the more anticipated changes within a service-learning program created by a faith-based institution. The study’s development of spirituality as an explicit outcome was a key metric. Results indicated that this area had the most significant growth. It was among the top three dimensions within each of the three UoA. The most significant spiritual growth was exhibited by UoA2 participants (in-country placements). This supports the literature in asserting that service-learning under the right conditions can foster spiritual growth (Barrett, 2016; Firmin et al., 2014; Helm-Stevens et al., 2018)

These results have practical implications for service-learning program design. Firstly, the integration of structured reflection activities, both written and verbal, appears critical in facilitating leadership growth. It is well documented that reflection bridges experience and learning (Kolb, 1984), enabling students to make meaning of their experiences and internalize leadership principles (Komives et al., 2017). Therefore, service-learning programs that intend to foster leadership development should incorporate structured reflection sessions, guided discussions, and written journals with a focus on the principles that are foundational to that leadership to maximize the developmental impact.

While the data indicate that longer service durations promote sustained development, the intensity and quality of the service experience are equally important. Short-term immersive programs can be highly effective when designed to include high-impact experiential learning elements, such as direct exposure to social injustices, community engagement, and guided ethical discussions. These programs should also include predeparture preparation and postexperience debriefing to optimize learning outcomes (Bringle & Hatcher, 1999).

Mentorship and guided responsibility seem equally important for long-term placements. Using key theories, such as situated learning, sustained exposure may be the key catalyst to sustained learning and growth. Institutions should ensure that participants are progressively given greater autonomy and leadership opportunities rather than remaining passive contributors. Providing structured mentoring relationships with experienced leaders in the service environment can enhance growth by modeling servant leadership behaviors in real-world settings.

There is an opportunity to explore hybrid models that combine the intensity of short-term immersions with the sustained engagement of long-term placements. Hybrid models could include an initial short-term immersion to create cognitive dissonance, followed by a longer-term placement that reinforces learning through deeper relational engagement.

Those with extensive service-learning experience are well placed to take on more responsibility for program design and leadership, “in-country.” Internship opportunities are also provided at Institution C for those who have hit the “service ceiling.” This includes visiting schools to promote future service opportunities and coleading immersion and placement preparation sessions.

Limitations

Subjectivity in research is a reality that cannot be ignored. Indeed, “the investigator’s values are said to define the world that is studied” (Ratner, 2002, p. 239). Steps were taken to mitigate against researcher bias by placing the participant voice at the forefront of this research. Service-learning volunteers were represented by both numerical data, with pre- and posttesting and one-on-one interviews. The quantitative phase uses an existing instrument (SLBS), rather than one created by the researcher. This reduces the risk of instrumental bias through the selection of an objective diagnostic measure. The semi-structured interview template is standardized across all participants with Sendjaya et al.’s (2008) six dimensions of servant

leadership as a bridge between the quantitative data based on the SLBS and new themes that emerged from the interviews.

Self-report measures come with several limitations, especially the tendency for respondents to answer in socially desirable ways. This was mitigated during the qualitative phase by drawing out more detailed responses than those provided during the quantitative phase. Moreover, observable behaviors were garnered by immersion leaders. Evidence from these discussions indicated an underplaying of socially desirable behaviors. Leader interviews (where appropriate) were conducted across all three institutions to gain group insights alongside those of individual volunteers. The same open-ended questions directed to volunteers during the qualitative phase were rephrased so that leaders could cite specific examples of individuals to support the observation. By engaging with multiple data points, including the use of SLBS and structured interviews with participants and leaders, the researcher has sought to increase triangulation.

Given its Ignatian context, a lack of generalizability could be considered an inherent limitation. While the rationale and preparation for the immersion could be considered distinctly Ignatian, they share the same fundamental aspects of any service-learning experience—reality (real-world issues and contexts), reciprocity (focus on mutual benefit), reflection (critical analysis), and responsibility (sense of obligation and social responsibility). In this way, the research conclusions are consistent with similar studies and generalizable beyond the confines of Christian service-learning.

Conclusion

The need for leaders willing to serve and act responsibly to develop authentic relationships has never been greater. Arguably, the need has only increased since Greenleaf laid out his framework for servant leadership development. By exposing volunteers to the realities faced by those on the margins, they have fostered not only authentic learning in the spirit of Greenleaf, Dewey, and Freire but also a transformative experience (Kiely, 2005; Mezirow, 2000).

This study sought to measure the impact of various service-learning immersion programs on their capacity to foster growth in servant leadership development through the SLBS. The data assert that service-learning positively impacts the development of servant leadership capacity. There was statistically significant growth for all six dimensions of the scale. This positive impact supports some of the existing quantitative literature (Leever et al., 2006; Roberts, 2006; Sabbaghi et al., 2013; Stewart, 2012), which posits that service-learning can develop servant leadership capacity.

In an era where ethical, service-oriented leadership is increasingly vital, this study underscores the transformative potential of service-learning. By intentionally designing programs that challenge participants and foster reflection, both religiously affiliated and secular institutions can cultivate the next generation of servant leaders equipped with the authenticity, moral responsibility, and transformative influence needed to effect positive change. The findings highlight the importance of both program intensity and duration, structured reflection, and the need for ongoing mentorship. Future research should continue exploring best practices for optimizing service-learning to ensure its lasting impact on leadership development and social responsibility.

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