

Article

Service-Learning at the Meso-Level: Integrating a Course on Sustainable Development with National Service Requirements

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Abstract

Higher education institutions have been leveraging service-learning (SL) to enhance the effectiveness of sustainable development education within their curriculum and pedagogical practices. However, the institutionalisation and application of SL are often limited to single, isolated classes. Contrary to this trend, the Ateneo de Manila University implements a unique application of SL by integrating two of its courses on sustainable development and service delivery, creating a structured, interdisciplinary SL experience for third-year students. Through a descriptive case study, this paper examines how integrating these courses creates an institutionalized SL experience at the meso-level, bridging institutional policies (macro-level) and course-level practices (micro-level) to create a scalable and interdisciplinary SL framework. The study highlights the academic and civic outcomes of this integration and explores its replicability for other universities seeking to institutionalize SL.

Keywords

Service-learning; meso-level integration; interdisciplinary education;

sustainable development; curriculum innovation; community engagement.

Introduction

With the advent of the United Nations Sustainable Development Goals (SDGs) and to further its path into becoming a *Laudato Si'* University, the Ateneo de Manila University has aligned its mission with *Laudato Si'*, Pope Francis's 2015 encyclical that calls for sustainable and integral development rooted in the care for "Our Common Home" (Francis, 2015). For Jesuit institutions, this entails taking an active role in ecological conversion, social justice, and ethical transformation (Weis, 2016; Ateneo de Manila University, 2023). In line with this vision, Ateneo redesigned its undergraduate curriculum to promote an integral, interdisciplinary, and Ignatian formation (Ateneo de Manila University, 2022a). Standing at the center of this renewed curriculum is what the University boasts as the *core curriculum*. Through its core curriculum, the school has its students grow through a deliberately designed educational experience that ties together a variety of courses that will enable students to be technical, critical, reflective, and action-oriented in the fields that they enter and as a response to the needs of the world (Ateneo de Manila University, 2022a). Split into four stages of Foundations, Rootedness, Deepening, and Leadership, the Ateneo's core curriculum has designed courses that all of its students take to learn more about themselves and the world at every year level (Office of Curriculum Development and Integration, 2021).

As part of its Deepening formation stage focused on defining oneself in the world, the University requires third-year students to enroll in an interdisciplinary course titled, *The Economy, Society, and Sustainable Development* (SOCSC13). This course is a signature component of Ateneo's core curriculum, designed to provide students with a holistic understanding of economic, social, and environmental sustainability, with service-learning as the primary pedagogical approach. Developed in response to local, national, and global challenges, the course encourages students to apply interdisciplinary perspectives to issues such as poverty, environmental degradation, and social inequality, thereby fostering socially responsible citizenship.

In parallel, students undertake the National Service Training Program (NSTP12), specifically the Civic Welfare Training Service component, which is mandated by law through the Philippine Republic Act No. 9163. NSTP12 is intended to nurture students' social responsibility and civic consciousness through direct community service. This course represents a nationwide effort among higher education institutions in the Philippines to instill service to the community among the young and contribute to nation-building initiatives. However, studies have shown that NSTP12 implementations do not fully adhere to SL principles, resulting in a narrow focus on compliance to perform any form of community service rather than transformative learning (Oracion, 2019). Furthermore, NSTP12 activities tend to lack a structured framework for critical reflection and interdisciplinary integration, limiting students' ability to connect classroom theory with meaningful community engagement, thus diminishing the program's potential for deep personal and social change (Balmeo et al., 2015; Salvador, 2021).

Building on these insights, the two courses are integrated into a synergistic framework that leverages their complementary strengths. NSTP12 nurtures social responsibility and civic consciousness through community service, while SOCSC13, by employing robust service-learning methodologies, offers theoretical insights and structured reflection that deepen students' understanding of socio-environmental challenges. This integration enriches practical engagement with reflective academic rigor, enhancing critical thinking and cultivating a deeper sense of social responsibility. It thus serves as a replicable model for institutions within and beyond the Philippines.

Finally, the simultaneous offering of SOCSC13 and NSTP12 during the third year exemplifies what we define as "meso-level integration," which is a coordinated approach that bridges macro-level institutional policies with micro-level course practices to create a comprehensive and scalable SL experience. Since their initial offering in the school year 2020-2021, these integrated courses have served over a thousand students per semester, spread across 30 to 50 sections, with section sizes ranging from 15 to over 80 students.

To deepen the student experience of SL, Ateneo partners with specific SOCSC13 and NSTP12 sections to provide and learn from highly specialized forms of community services. Unlike other institutions where SL initiatives are often isolated, the Ateneo model, whereby integrating a core academic course with a government-mandated service component, represents a pioneering meso-level approach in the Philippines.

Thus, this paper examines how integrating SOCSC13 and NSTP12 courses creates an institutionalized SL experience at the meso-level of undergraduate education and administration. Specifically, we seek to answer the following research questions:

1. How does integrating SOCSC13 and NSTP12 courses at Ateneo create an institutionalized SL experience at the meso-level?

2. What are the outcomes of this integration for students?

3. How can this integrated model be a replicable framework for other universities seeking to institutionalize SL?

The study is structured as follows to answer these questions: Section 2 reviews relevant literature on SL implementation across different institutional levels. Section 3 outlines the theoretical framework, emphasizing interdisciplinary education and SL institutionalisation. Section 4 details the methodology, including case study analysis and document review. Section 5 presents the findings and discussion, focusing on shared learning outcomes, interdisciplinary collaboration, and administrative support mechanisms. Finally, Section 6 concludes with the contributions of the study to SL theory and practice and discusses implications for replicability and scalability in other academic institutions.

Literature Review

SL has drawn considerable interest as a teaching strategy in higher education, blending academic instruction with community engagement to achieve learning outcomes and civic responsibility (Krift et al., 2024). As colleges and universities adopt SL to contribute to the SDGs, studies show significant benefits for students, community partners, and institutional growth (Rodríguez-Zurita et al., 2024). However, while much research has focused on individual SL initiatives or institution-wide policies, a significant gap exists in understanding how SL can be integrated at the meso-level, where multiple courses within an institution collaboratively pursue broad educational aims.

In this review, "macro-level" refers to institution-wide SL strategies and policies, "micro-level" pertains to SL practices confined to single courses or projects, and "meso-level" denotes the coordinated integration of SL across multiple classes or departments, thereby bridging overarching institutional strategies with individual classroom practices.

The Current State of Service-Learning Integration

Macro-level analyses typically examine how academic institutions design and sustain SL initiatives on a broad scale. Researchers investigate factors such as administrative support, financial resources, and policies—like university-wide strategic plans or community engagement charters—that either enhance or hinder SL's success (Tijsma, 2024). These factors often determine whether SL is embedded within the institution's strategic goals, integrated as a graduation requirement, or remains

an optional extracurricular activity. Macro-level studies emphasize the long-term institutional infrastructure for sustaining SL and note that endorsements from the highest levels of leadership can legitimize and encourage faculty participation across multiple disciplines (Goldbach et al., 2022). Nevertheless, such top-down approaches are sometimes criticized for focusing too heavily on directives without addressing the day-to-day complexities of teaching and faculty motivation (Mospan, 2024). Scholars argue that while macro-level support is essential, it must be complemented by detailed, ground-level structures that facilitate ongoing collaboration among faculty, staff, and students (Ti et al., 2020).

On the other hand, micro-level studies concentrate on individual courses or specific SL projects that may last only one semester or an academic year.

These studies provide rich, descriptive accounts of how faculty incorporate SL into their syllabi, how students apply classroom knowledge in practical settings, and how community partners assess the benefits of these engagements (Salam et al., 2019).

Micro-level approaches have been instrumental in identifying best practices for assignment design, reciprocal community relationships, and reflective activities that enhance student learning (Ti et al., 2020). However, such approaches are often criticized for their limited scope and scalability. When SL is confined to single courses, the broader transformative potential for institutional change and sustained community impact may be constrained (Salazar et al., 2024). Moreover, without mechanisms for sharing insights and lessons learned across courses, successful SL practices risk remaining siloed, hindering systematic improvements and broader adoption across departments (Deshpande et al., 2024).

The Underexamined Meso-Level

Despite the wealth of knowledge generated by macro- and micro-level studies, the meso-level remains underexamined. This level represents the coordinated, cross-disciplinary efforts in which multiple courses, departments, or programs align their SL initiatives to achieve unified learning outcomes and sustained community engagement. In other words, the meso-level is where policy meets practice in a systematic and integrated way, enabling educators to scale and replicate effective SL models across diverse disciplines (Goldbach et al., 2022; Tijsma, 2024). When multiple courses within the same institution collaborate under a common SL agenda, sharing learning outcomes, community partner networks, and interdisciplinary frameworks, the potential to sustain meaningful community partnerships, enrich

student learning, and build institutional capacity for continuous engagement is greatly enhanced (Facal et al., 2024; Kostell et al., 2021).

Benefits and Challenges of Integrated SL Models

Integrated SL models operating at the meso-level offer numerous pedagogical and societal benefits. From a teaching and learning perspective, students benefit from opportunities to connect theoretical concepts from multiple courses to real-world issues, thereby developing a more holistic understanding of societal challenges (Pinfold, 2021). Research indicates that when SL is integrated across various academic subjects, students recognize the multifaceted nature of poverty, environmental degradation, and public health disparities (Pinfold, 2021; Schuetze et al., 2019). Thus, meso-level integration not only facilitates interdisciplinary collaboration but also enhances comprehensive problem-solving skills among students.

Furthermore, integrated SL models promote critical thinking and analytical capabilities. By engaging with complex community challenges that require input from diverse academic fields, students learn to synthesize sociological, political, and technical perspectives (Álvarez-Huerta et al., 2024). Scholars such as Choi et al. (2023) emphasize that such approaches nurture social awareness and civic responsibility, ensuring students recognize how their academic expertise can be applied for the common good.

From an institutional perspective, when multiple courses cooperate, they can share resources such as faculty expertise, administrative tools, and community partner networks, making SL more efficient and sustainable. This collaborative framework fosters stronger relationships with community organizations, enabling these partners to engage with a stable, structured set of university programs rather than sporadic, uncoordinated projects (Block & Bartkus, 2019; Suckale et al., 2018). Over time, such solid partnerships contribute to a culture of mutual trust and reciprocity between the university and its community partners, ultimately amplifying the long-term impact of SL (Groulx et al., 2020).

Despite these benefits, several challenges can impede successful meso-level integration. First, inter-departmental cooperation demands significant time and energy from faculty members, who already face heavy teaching, research, and service loads (Karasik, 2020). Coordinating multiple syllabi, assessment strategies, and community partners necessitates robust institutional frameworks for ongoing communication and resource sharing. Second, variations in faculty training and expertise can complicate collaboration. While some educators are adept in SL pedagogy and eager to collaborate, others may lack the methodological background or be uncertain about effectively evaluating SL outcomes (Hou & Wilder, 2015). As Robinson and Harkins (2018) note, student engagement and learning quality are closely tied to the alignment between service activities and academic content; without clear integration of reflective assignments and practical experiences, students may engage in shallow volunteerism rather than in academically grounded community work. Finally, securing adequate administrative and financial support remains a challenge. Even with a strong institutional commitment to community engagement, tangible investments, such as funding for course releases, training sessions, and logistical support, are necessary to facilitate faculty collaboration and sustain community partnerships (Adarlo et al., 2022; Lewing & Shehane, 2017). Without sustained institutional commitment, meso-level SL projects risk being short-lived or inconsistently applied, limiting their transformative potential.

The Gap in Meso-Level Integration

Although SL's potential to enhance education is well-documented, there is a dearth of studies addressing its application at the meso-level. At the Ateneo, the integration of SOCSC13 and NSTP12 provides a unique case study that bridges this gap by merging a core sustainability course with a

government-mandated civic welfare course, thereby creating a coordinated SL model that spans disciplinary boundaries. Li et al. (2023) advocate for interdisciplinary approaches in SL, emphasizing the importance of unified learning outcomes across courses. Similarly, Quendler et al. (2022) highlight how integrating sustainability into the curriculum can spur the achievement of the SDGs. Nevertheless, critical questions remain regarding the logistics of implementing and sustaining meso-level SL.

Thus, this study aims to address these gaps by investigating how the integration of SOCSC13 and NSTP12 institutionalizes SL at the meso-level, effectively bridging the limitations of macro and micro-level approaches. The anticipated findings will offer best practices that underscore the central role of thoughtful course design, cross-departmental collaboration, and institutional support in realizing SL's full potential while providing a replicable blueprint for other universities.

Theoretical Framework

Ateneo's decision to integrate SOCSC13 with NSTP12 offers a compelling illustration of how interdisciplinary education can address complex social and environmental issues. Drawing on the Theory of Interdisciplinary Studies advanced by Newell (2001), the University encourages students to explore multiple dimensions of sustainability, such as economic, social, and environmental, while honing a sense of civic responsibility. In doing so, Ateneo demonstrates that real-world challenges demand more than specialized knowledge from a single field; instead, they require synthesizing insights from diverse disciplines.

The Theory of Interdisciplinary Studies highlights the limitations of strictly disciplinary thinking when facing multifaceted problems like poverty, climate change, and social inequality (Newell, 2001). By integrating SOCSC13 with NSTP12, Ateneo underscores the need to move beyond compartmentalized approaches and instead cultivate broad perspectives that link theoretical knowledge with active engagement. This initiative resonates with Repko's (2007) notion of creating common ground among different disciplines: students studying sustainability in SOCSC13 learn how social, economic, and ecological factors intersect while simultaneously addressing community needs through NSTP12. In SL projects, they see firsthand how disciplines such as economics, sociology, and environmental studies converge to inform more holistic solutions.

SL is particularly well-suited for interdisciplinary endeavors because it allows learners to move between classroom-based theory and community-based practice. According to Li et al. (2023), project-based SL strengthens students' ability to navigate the complexities of real-world scenarios, promoting teamwork and creative problem-solving. Through interdisciplinary SL, students do not merely grasp abstract concepts; they also develop the practical skills and relational understanding required for effective community engagement. By collaborating with local organizations and stakeholders, they witness how diverse forms of knowledge complement one another in tackling shared problems, whether these involve urban development, resource management, or public health education (Alvarez-Milán & Villareal, 2020).

Such an approach also strengthens critical thinking. When confronted with real-world issues, students need to assess challenges from multiple angles, such as economics, ethics, environmental science, and policy, while negotiating differing perspectives among community members and fellow students. This multifaceted analysis fosters deeper insight as learners connect theoretical constructs from their coursework with tangible community outcomes. Whitley (2014) observes that SL can act as a crucible for experiential learning, prompting students to refine their ability to formulate hypotheses, collect evidence, and evaluate results in partnership with local stakeholders.

Nevertheless, integrating multiple disciplines around SL requires a concerted effort at the institutional level. Faculty collaboration is crucial: instructors must harmonize course objectives, align assignments, and create reflective activities that help students synthesize their experiences. As García-Gutiérrez et al. (2020) note, designing collaborative projects entails a willingness to experiment with new pedagogical tools and technologies. Administrators, in turn, need to allocate resources for faculty training and develop assessment strategies that capture interdisciplinary learning outcomes more effectively than traditional, single-discipline rubrics.

> **Ateneo's SOCSC13–NSTP12 model exemplifies how the Theory of Interdisciplinary Studies can be translated into concrete curricular practices.**

By ensuring that students absorb sustainability principles, acquire civic skills, and apply both in community settings, Ateneo foregrounds the transformative potential of higher education. Students gain an integrated worldview that extends beyond individual course silos, becoming more aware of their role in shaping sustainable futures. They learn that addressing global challenges depends on collaboration across disciplinary boundaries and active partnerships with communities. In this sense, the university's integrative efforts mirror the broader shift in higher education toward engagement-oriented scholarship, which emphasizes the mutual knowledge exchange between academic institutions and the communities they serve.

Methods

This paper employs a two-fold methodological strategy to address the literature gaps presented and align with the Theory of Interdisciplinary Studies. First, a descriptive exemplary case study design was used (Yin, 2018) to present the case of Ateneo's SOCSC13 and NSTP12 SL experience. Moreover, this piece also serves as a practice article, showcasing a possibly replicable model that other higher education institutions may follow. Methodologically speaking, the presentation of the Ateneo's SL model follows the sharing of good or best practices present in numerous fields (Bretschneider, Marc-Aurele, & Wu, 2005; Serrat, 2008).

For data collection, the study mainly conducted a document analysis of department reports, course curricula, course syllabi, and other relevant course materials. Moreover, the data was triangulated with quantitative student evaluations and supplemented with qualitative anecdotes from course instructors and coordinators, including insights from the researchers of this paper. This triangulation process enhanced the validity of the findings by cross-verifying information across multiple sources. It is important to note that pseudonyms have been used in the results section to protect student anonymity.

Results and Discussion

Shared Outcomes

Following the principles of outcome-based education (Spady, 1994) and adaptive design for learning (Ateneo de Manila University, 2022b; United Board for Christian Higher Education in Asia, 2022), the revised curriculum was designed with a deliberate intention for SOCSC13 and NSTP12 to share specific course learning outcomes. Notably, these courses are delivered concurrently during the third year, with overlapping modules and lessons facilitating continuous integration throughout the semester. This intentional sharing of two learning outcomes, as presented in Table 1, establishes a common educational goal that bridges the disciplinary focus of each course with the broader, interdisciplinary objectives characteristic of meso-level integration. These shared outcomes enable coordinated assessment and constant communication between the courses, exemplifying how a meso-level, interdisciplinary curriculum enhances the application of diverse methodologies to real-world problems (Li et al., 2023).

In analyzing the shared learning outcomes, it is evident that they incorporate key SL principles. For instance, Outcome 2 emphasizes lessons from SOCSC13 to real-world challenges such as poverty and sustainable development through NSTP12's community engagements, while Outcome 3 requires students to build deeper relationships with community sectors–a synergy attainable only when theoretical insights and practical experiences are merged effectively. Moreover, these two shared learning outcomes complement each other's individual learning objectives, as the successful attainment of the shared outcomes reinforces the achievement of Outcome 1. This integration reinforces individual disciplinary outcomes and creates a platform for holistic, interdisciplinary learning, aligning with the theoretical framework advanced by Newell (2001) and Repko (2007).

The curriculum further reinforces integration through the deliberate design of class content modules. In particular, for all SOCSC13 classes, an overarching module dubbed as Practices covers the need for lesson application. Moreover, within this module, activities for NSTP12 are incorporated into the class, essentially signaling to students that their participation in NSTP12 is necessary for their learning and success in SOCSC13. These activities encompass community visits and engagements,

Table 1. *SOCSC13 and NSTP12 Course Learning Outcomes*

	SOCSC13	NSTP12
Outcome 1 (Individual)	Apply the different development parameters and paradigms with regard to how they define, account, and relate critical socio-economic problems.	Critically understand different transforming structures and processes that contribute to or help alleviate the experience of poverty and marginalization in their assigned community.
Outcome 2 (Shared)	Demonstrate the application of interdisciplinary and scientific methodologies and frameworks in analyzing contemporary socioeconomic issues, particularly on poverty and sustainable development.	
Outcome 3 (Shared)	Develop a sense of commitment and vocation towards advocacies that promote poverty reduction and sustainable development especially in marginalized sectors and communities.	

Note. Data for this table is taken from the SOCSC13 and NSTP12 syllabi templates.

reflection sessions, and shared outputs of SOCSC13 and NSTP12. This design underscores the meso-level integration by explicitly linking discipline-specific activities with the interdisciplinary goals of the integrated SL model.

Ateneo's SL Approach

Ateneo's SL approach is distinctive in its combination of discipline-specific service work within an interdisciplinary framework. Administrators and instructors believe that aligning SL initiatives with students' major disciplines strengthens the practical application of theoretical knowledge, thereby enriching students' educational experiences (Messina & Davenport, 2024). In this integrated model, while each course contributes unique disciplinary perspectives – such as community development and organizing in Development Studies, small-and-medium enterprise training in Business, or insect taxonomy in Biology – the meso-level integration arises from the coordinated design and shared outcomes that transcend individual disciplines. Table 2 provides a general summary of the discipline-specific across various degree fields, illustrating how each activity contributes to both specialized learning and the broader interdisciplinary aims of the integrated SL model.

Moreover, Ateneo enhances its SL approach by integrating a third course into the SOCSC13–NSTP12 framework in several degree programs. These third courses, which are major courses taken during the third year, bring technical expertise to the integrated model by incorporating methods and skills specific to each discipline. For example, chemistry students conduct experiments in their instrumental chemical analysis class with samples taken from their community partner from SOCSC13 and NSTP12. In this class, the final report incorporates an additional communicative dimension by presenting the analysis to the partner community at the semester's end. Another example is the engagement of culinary entrepreneurship students taking their food quality management class in tandem with SOCSC13 and NSTP12. Their partners are micro to small food establishments within markets and communities, where students assess and review food preparation and safety procedures, offering recommendations for improvement. Such examples underscore the dual nature of the model: while each discipline retains its specific focus, the overall structure–delivered concurrently–ensures that the interdisciplinary benefits are realized through coordinated assessments and shared reflective activities.

Shared Assessments and Activities

Further highlighting the integration of SOCSC13 and NSTP12 are several shared assessments and activities. For assessments, the courses share two types of output: an integrated report and an individual reflection paper. Together, these two outputs comprise 50% of the grade in both courses. In addition, the same rubrics for these assessments are shared between both courses to cement their integrated nature.

Dubbed the Final Integrated Output, students pass this report in two parts, an action plan and the final report. Primarily, the two passes have students recount and reflect on their SL experience as a group.

Table 2. *Summary of Discipline-Specific SL Activities in Ateneo's SOCSC13 and NSTP12 Courses*

Degree Fields	Engagement Activity	Partnering Major Course
	School of Humanities	
Fine Arts and Literature	Co-creating art projects with communities and youth organizations	Art and the Community
Interdisciplinary Studies and the Humanities	Co-creating websites, videos, publication materials with organisations	Interdisciplinary Studies and the Humanities
Philosophy	Facilitation of Community of Inquiry methodology with communities	
	Dr. Rosita G. Leong School of Social Sciences	
Communications	Co-creation of communications plan for organizations and communities	Communication for Social Change
Development Studies	Comprehensive assessment reports and practical project proposals designed for implementation in the succeeding semester as part of another course.	Community Development and Social Change
Diplomacy and International Relations	Research on Overseas Filipino Workers with organisations that cater to the workers' concerns	Community Development and Social Change
Economics	Surveying and econometric analysis on data gathered for a partner	
European Studies and History	Public school tutorials on World History	
Political Science	Policy brief research and writing for advocacy organizations	
Philosophy	Facilitation of modules on anti-substance abuse and use for youth organisations, basic education schools, and communities	Development Psychology or Abnormal Psychology
Sociology	Development of survey materials with partner organizations	Quantitative Research Methods: Social Survey

Table 2. *Continued*

Degree Fields	Engagement Activity	Partnering Major Course
	School of Science and Engineering	
Biology	Insect specimen sampling to determine environment quality Soil and water sampling for communities	Systematics
Chemistry	Soil and water sampling for communities	Instrumental Chemical Analysis
Computer Sciences and Information Technology	Website creation, tutorials on programming, or database design for schools, organisations, and communities	
Engineering	Public school tutorials on robotics	Engineering Management
Environmental Sciences	Soil and water sampling for communities	Environmental Monitoring: Instrumentation and Analysis
Health Sciences	Assessment of local community health services and provision of recommendations	Anthropology of Health
Life Sciences	Proposal for livelihood opportunities for communities	
Mathematics	Public school tutorials on pre-calculus	
Physics	Public school tutorials on electromagnetism	Electromagnetic Energy Transfer
	John Gokongwei School of Management	
Culinary Entrepreneurship	Review of food safety standards for micro and small community-based food establishments, and provide recommendations for improvement	Food Quality Management
Business Management	Review of various business aspects of micro and small community-based enterprises, and provide recommendations for improvement	
	Provision of training on business-related matters for micro and small community-based enterprises	
Legal Management	Provision of workshops on business permit application	

Note. The data for this table is taken from reports from the Office for Social Concern and Involvement of the Ateneo. The fields presented in this table are only a general categorisation of various courses that fall within certain fields listed. Several degree fields may house one or more degree programs offered by each of the Ateneo schools and faculties.

Moreover, these reports task students to determine how their community engagements forward the SDGs and how their academic discipline aligns with their activities. In the final report, students are also tasked with assessing their experience and determining what sustainable development theories or frameworks apply in the work they did. Finally, students are prompted to evaluate their work and assess their effectiveness, efficiency, authenticity, and community impact and transference.

For the individual reflection paper, each student is asked to reflect on four levels. The first prompt has them recall the semester's SL experience and share the ones that appeal or strike them the most. Second, the reflection asks them to analyze their experience and attempt to find explanations as to why the activity they did was necessary or to examine the situation surrounding their partner community or organization. Next, the students are then made to reflect on their emotions and to search for the significance of the experience in their life and growth. The final portion is a call for action that stems from their reflection of the previous sections.

Beyond the assessment and reflection present in the shared outputs, SOCSC13 and NSTP12 instructors also set aside in-class reflection activities throughout the semester.

These sessions, conducted jointly by instructors from both courses, further reinforce this integration approach by providing a forum for students to process their experiences after community visits. These sessions enable students to learn more deeply and derive meaningful insights, consistent with Kolb's experiential learning theory (Long & Gummelt, 2020).

Meso-Level Planning and Administrative Support

A critical aspect of the meso-level integration is coordinated delivery of SOCSC13 and NSTP12 by separate but collaborating administrative units. For SOCSC13, the Department of Development Studies helms the offering of the course. While the Office for Social Concern and Involvement spearheads the conduct of NSTP12. Having SOCSC13 in an academic department allows the course to focus more on the theoretical aspect of sustainable development, and having NSTP12 housed in one of the University's formation offices allows its instructors to focus on the practical service work of their integration. In several cases, the balance between academic requirement and community engagement gets called to attention in the SL literature (Kaliappen, 2024). However, this bifurcated yet coordinated structure embodies the meso-level integration, ensuring that the academic and service components mutually reinforce each other. Moreover, NSTP12 instructors not only collaborate with SOCSC13 faculty but also engage closely with communities to align service engagements with academic objectives. This coordinated approach is crucial, as instructors significantly influence the depth and impact of students' SL engagements (Karasik, 2020; Robinson & Harkins, 2018).

Semestral preparations for both courses commence several months in advance, with lead coordinators of SOCSC13 and NSTP12 aligning learning outcomes, coordinating with academic departments, and securing community partners. Throughout the process, SOCSC13 faculty and NSTP12 instructors assigned to the different degree programs participate in community and activity selection.

For administrative support, the most significant aspect is the integration of these classes into the University's core curriculum and student formation program. Additional support includes pre-enlisting students in SOCSC13 and NSTP12 to ensure proper section paring for each degree program. Moreover, faculty conducing SL activities are encouraged to apply for additional teaching credits ranging from 0.5 to 1.5 units per section, depending on their involvement in the key SL-related tasks: such

as overseeing student projects, coordinating with community partners, guiding students in the field, integrating SL into assessments, and facilitating reflection and output delivery.

Outcomes for Students

Regarding student learning and course improvements, the partnership between SOCSC13 and NSTP12 is evaluated at the end of each semester It is important to note that before school year 2020–2021, NSTP12 was implemented as a standalone course while SOCSC13 was not offered, and thus no baseline data exist for comparison. However, data from its initial implementation may not be presented anymore as data consent and privacy provisions only allowed for the banking of the data for up to five years. Moreover, because of the COVID-19 pandemic, Ateneo shifted to fully online quarterly school year rather than its usual semestral layout. As such, the implementation and evaluation of the integrated courses of that initial year differ significantly from its implementation starting School Year (SY) 2021-2022.

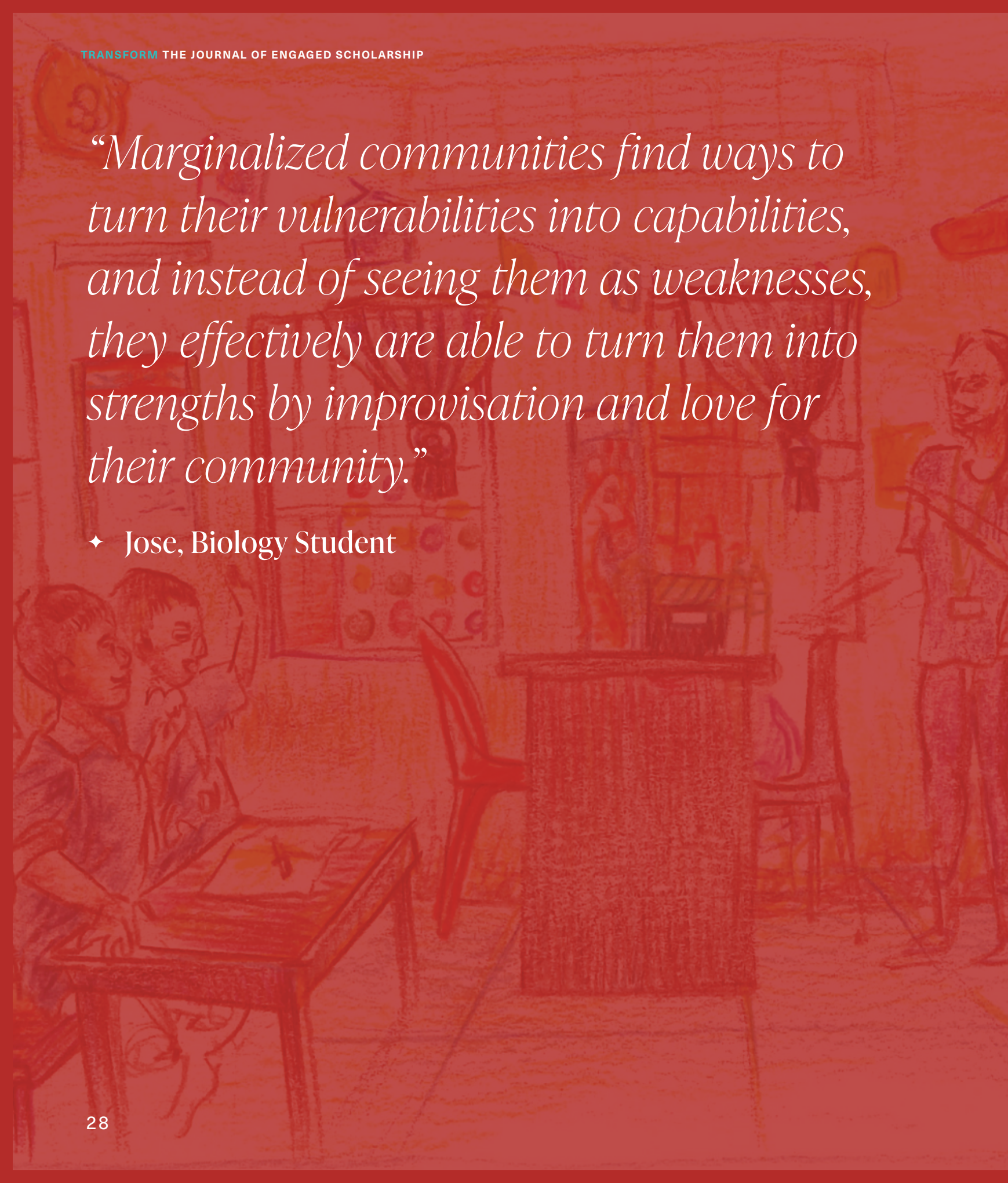
Table 3 presents the mean scores per semester from SY 2021-2022 to 2023-2024, based on a sample size ranging from 361 to 922 student responses per semester, with the scores representing the average responses and the standard deviations indicating variability[1]. From SY 2021–2022 to 2023–2024, students reported increasingly positive perceptions of

the integration between SOCSC13 and NSTP12, with mean scores rising slightly and standard deviations narrowing (e.g., integration M = 4.83–5.20; SD = 1.10–1.27), indicating improved and more consistent experiences. The application of SOCSC13 frameworks through NSTP12 showed similar upward trends (M = 5.01–5.37) with decreasing SDs (1.15–0.91), reflecting growing agreement. Perceived SOCSC13 course relevance remained high (M = 5.07–5.37), while declining variability (SD = 1.17–0.94) suggests strengthening consensus. The strongest and most stable responses were for NSTP12's role in fostering civic commitment (M = 5.31–5.50; SD = 0.75–0.93), underscoring its enduring impact across cohorts. Overall, the data suggests that students consistently perceive the integration as beneficial, with increasing mean scores and decreasing standard deviations over time reflecting a strengthening of the alignment between service engagement and their disciplinary studies.

Notably each academic year saw the introduction of interventions such as enhanced faculty training workshops, post-evaluation and realignment meetings between SOCSC13 faculty and NSTP12 instructors, curriculum fine-tuning, and improved community partnership coordination. These measures likely contributed to the upward trend in scores. This finding supports the theoretical framework by demonstrating that meso-level integration, where interdisciplinary (shared) outcomes complement discipline-specific objectives, enhances student learning (Newell, 2001; Li et al., 2023). For example, the consistently high scores for statements such as "The NSTP12 Program provided me with the opportunity to use the frameworks learned in SOCSC13 to analyze the issues and adaptive strategies identified in my assigned partner area" suggest that students are effectively bridging theory with practice.

"Marginalized communities find ways to turn their vulnerabilities into capabilities, and instead of seeing them as weaknesses, they effectively are able to turn them into strengths by improvisation and love for their community."

✦ Jose, Biology Student



Qualitatively, students expressed significant personal and professional growth. In alignment with the interdisciplinary framework, reflections reveal that students not only acquire discipline-specific skills but also develop broader competencies such as empathy, critical thinking, and civic responsibility. As Jose, a male Biology student, mentioned in his reflection,

> ***"Marginalized communities find ways to turn their vulnerabilities into capabilities, and instead of seeing them as weaknesses, they effectively are able to turn them into strengths by improvisation and love for their community,"***

thereby illustrating how his engagement in SL led to a transformative shift in his understanding of community resilience.

[1]The lower bound of 361 student responses is an outlier as only students that provided consent for their responses to be included for research and publication were considered in the quantitative evaluation for this paper.

Table 3. *Evaluation Data for SOCSC13 and NSTP12 from 2021-2022 to 2023-2024*

	1st Semester			2nd Semester		
Evaluation Questions	SY 21-22 n=841 **M (SD)**	SY 22-23 n=857 **M (SD)**	SY 23-24 n=922 **M (SD)**	SY 21-22 n=361 **M (SD)**	SY 22-23 n=726) **M (SD)**	SY 23-24 n=801 **M (SD)**
The NSTP12 Program integrated well with SOCSC13.	4.83 (1.27)	5.05 (1.16)	5.10 (1.16)	5.08 (1.10)	5.11 (1.13)	5.20 (1.13)
The NSTP12 Program provided me with the opportunity to use the frameworks learned in SOCSC13 to analyze the issues and adaptive strategies identified in my assigned partner area.	5.01 (1.15)	5.23 (0.99)	5.32 (0.96)	5.24 (0.98)	5.30 (0.97)	5.37 (0.91)
The SOCSC13 course is relevant to my degree program. For example, I learned insights on sustainability goals that can be applied to my main discipline.	5.07 (1.17)	5.23 (1.08)	5.26 (1.06)	5.20 (1.03)	5.26 (1.02)	5.37 (0.94)
The NSTP12 Program helped me to develop a sense of commitment and vocation towards serving marginalized sectors of society.	5.31 (0.93)	5.48 (0.75)	5.47 (0.83)	5.37 (0.86)	5.45 (0.80)	5.50 (0.81)

Note. Data for this table is taken from the end-of-semester evaluation given to NSTP12 students that consented to share their data for research and publication. The authors selected survey questions that highlight the integration of SOCSC13 and NSTP12 and selected SL principles. Responses were recorded on a Likert scale ranging from 1 (strongly disagree) to 6 (strongly agree).

Several students recognized the intersections among their roles in development, the value of stakeholders, their education, and the SDGs. For instance, Spring, a female Development Studies student, explained:

> ***"Engaging deeply with the PWDs of Barangay Sauyo through these courses transformed my understanding of community development—from seeing it as external problem-solving to recognizing it as a collaborative empowerment of people to enact their own lasting change. This journey honed my empathy, communication, and adaptability as I learned to truly listen to and value every stakeholder's voice... I began to view the 17 Sustainable Development Goals not as mere concepts but as actionable commitments.... I've realized that sustainable progress comes from empowering communities and practicing genuine respect for each individual's unique worth."***

Spring's reflection reinforces a shift from traditional, compartmentalized approaches of learning to integrated, action-oriented learning. Similarly, Mary, another female Development Studies student, highlighted that her experience revealed that genuine development is not about imposing solutions from above but about empowering communities from the ground up. She reflected that:

> ***"Engaging with the [Educational Research and Development Assistance Foundation] parents in Barangay Bagong Silangan revealed to me that genuine development [is not] about imposing solutions from the top down but empowering communities from the ground up to enact their own lasting change. Witnessing their vulnerability to flooding and the limitations of unchecked economic growth underscored the necessity of participatory, people-centered approaches. By co-creating solutions and building capacity, we honor the principles of magis and cura personalis, choosing the more loving option and caring for the whole person."***

This statement confirms that the integrated SL experience helps students develop a critical awareness of community needs and redefines their role as active change agents.

Analysis of the survey and qualitative reports reveal that the SL model employed by the SOCSC13 and NSTP12 classes effectively enhances student self-awareness and clarifies their broader societal roles. Moreover, the student reflections highlight an appreciation of how their degree programs contribute to sustainable development. Although the SL program features a deliberate discipline-specific approach, the academic environment and flexibility provided enable students to explore and articulate their specialized contributions within an inherently interdisciplinary framework created by the integration of SOCSC13 and NSTP12 (Newell, 2001; Li, et al. 2023).

Replicability and Challenges for Institutionalizing SL

The minimum two-course integration model offers a replicable framework for other universities seeking to institutionalize SL. Aside from crucial administrative backing and resources, key elements of this model include shared course learning outcomes and coordinated syllabi, which collectively provide the structural basis for both discipline-specific and interdisciplinary learning. This framework not only aligns with institutional SL policies at the macro level but also addresses the limitations of micro-level implementations that may lack scalability (Goldbach et al., 2022; Tijsma, 2024). Moreover, the model's emphasis on interdisciplinary collaboration across departments, achieved through coordinated planning and shared assessments, demonstrates that effective SL requires bridging the gap between specialized disciplinary content and the broader goals of sustainable development.

However, several challenges must be addressed for successful institutionalisation. First, the coordination required for meso-level

integration demands substantial inter-departmental collaboration and administrative support, which can be constrained by large class sizes and limited instructor availability. Second, ensuring that each discipline retains its specialized focus while contributing to a cohesive interdisciplinary SL experience requires clear definitions and consistent implementation of both discipline-specific and interdisciplinary components. In the present model, "meso-level integration" is defined as the coordinated collaboration across courses that share common outcomes and engage in joint community activities, thereby ensuring that the interdisciplinary dimension reinforces rather than dilutes the discipline-specific contributions. Third, while mandated service programs such as NSTP12 provide a structural opportunity for integration, the effectiveness of these programs depends on aligning curriculum policies, design, and pedagogical practices rather than solely relying on financial or administrative support.

In response to these challenges, Ateneo has implemented several effective interventions. For instance, faculty participation is incentivized through additional teaching credits, and the same instructor models for SOCSC13 and NSTP12 are employed for certain degree programs to help mitigate staffing and coordination issues. Additionally, partnerships with city or national government programs assist in managing community capacity for large cohorts of students. Overall, despite these challenges, the Ateneo meso-level SL model demonstrates that deliberate planning, cross-departmental collaboration, and clear operational definitions are key to achieving a sustainable and replicable integrated SL framework. This model not only enhances student learning and community engagement but also serves as a blueprint for institutions seeking to bridge micro-level classroom practices with macro-level institutional support.

Conclusions and Contributions to Theory and Practice

Ateneo's tandem of SOCSC13 and NSTP12 courses offers a model for institutionalized SL courses at the undergraduate level, effectively bridging micro- and meso-levels with a university. Integrating these two standalone courses underscores the importance of intentional course design in institutionalizing SL within universities. Furthermore, while the service experience provided by the courses is discipline-specific, the preparatory work requires interdisciplinary collaboration among instructors and staff. Finally, the success of an integrated SL course like that presented in this paper may necessitate a dedicated office focused on student formation and community development.

Regarding replicability and scalability, such a model requires substantial institutional commitment, faculty training, and resource allocation to ensure effective implementation. Although the NSTP12 course is government-mandated and may exempt certain students, Ateneo has ensured that all students engage in SL through its integration into the core curriculum. This demonstrates how universities can institutionalize SL beyond policy requirements by embedding it within their academic mission. Schools looking to replicate Ateneo's model must adopt a deliberate approach to SL integration, ensuring alignment with their institutional vision, faculty capacities, and student learning outcomes.

Specifically for universities in the Philippines, Ateneo's implementation of the NSTP12 course may be a very effective model to adapt for its students and partner communities. With NSTP12 required for all students, universities may certainly maximize the mandated course's potential and elevate its practice by incorporating SL principles, making its impact greater for both students and community partners. Beyond the Philippines, government-mandated service delivery may be scant. As such, an implication this case study may have for non-Philippine universities is to advocate for the provision of a curriculum-mandated interdisciplinary course on sustainable development that integrates discipline-

specific knowledge with real-world service. While previous experiences have shown that SL is viable even in standalone courses, few models explicitly tailor service activities to match students' academic majors or professional tracks within an interdisciplinary context. Ateneo's SL model provides evidence on how an interdisciplinary framework enables students to apply insights from their respective fields to address authentic community needs. This not only broadens their learning experience and promotes deeper engagement but also increases the relevance and impact of the services they provide, ultimately creating a more meaningful link between their academic programs with the service they offer for and with others.

As this paper provides a good practice case for SL institutionalisation at the meso-level, comparative studies on Ateneo's model with the SL institutionalisation practices of other schools will be worthwhile. Moreover, and specifically for the Ateneo case, additional studies on these challenges and integrating major courses into the SOCSC13 and NSTP12 framework will be beneficial in deepening SL institutionalisation and outcomes for students.

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Acknowledgments

We extend our deepest gratitude to all the students, communities, organizations, and institutions partnered with SOCSC13 and NSTP12, whose collaboration and support have been invaluable. Special thanks to the Office of the Assistant Vice President for Social and Environmental Engagement for Development and Sustainability, the Office of the Associate Dean for the Core Curriculum, the Dean of the School of Social Sciences, and the Office for Social Concern and Involvement. Thank you for your unwavering commitment to fostering meaningful and impactful educational experiences through service-learning.