

Tri-Disciplinary Capacity Building: A Case Study of a Greater Bay Area Exchange Program and Its Impact on Lecturers' Competencies for SDGs-Aligned PKM

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Abstract: Designing community service programs (PKM) aligned with Sustainable Development Goals (SDGs) requires integrated competencies in management, communication, and accounting. This study evaluates a one-week exchange program to the Greater Bay Area in January 2026 on building these capacities. Using a qualitative case study design, data was triangulated through focus group discussions, content analysis of PKM action plans, and observation of budgeting simulations. Findings indicate growth across three core competency clusters: (1) Managerial Competence (improved strategic planning), (2) Cross-Cultural Communication Competence (heightened cultural sensitivity), and (3) Financial-Accounting Literacy (stronger grasp of fund management transparency). This synergy enabled lecturers to design realistic, fundable PKM proposals linked to specific SDGs, particularly Quality Education (4), Decent Work (8), Industry and Innovation (9), Sustainable Cities (11), and Partnerships (17). The study concludes that targeted short-term international exchanges serve as a catalyst to translate global agendas into sustainable community engagement initiatives.

Keywords: Capacity Building, International Exchange, Lecturer Competencies, Sdgs-Aligned PKM, Tri-Disciplinary Skills

Abstrak: Perancangan program pengabdian kepada masyarakat (PKM) yang selaras dengan Sustainable Development Goals (SDGs) membutuhkan integrasi kompetensi manajemen, komunikasi, dan akuntansi. Penelitian kualitatif dengan pendekatan studi kasus ini mengevaluasi dampak program pertukaran internasional selama satu minggu ke Greater Bay Area (Januari 2026) terhadap peningkatan kapasitas dosen. Pengumpulan data dilakukan melalui diskusi kelompok terarah, analisis rencana aksi PKM, dan observasi simulasi penganggaran. Hasil penelitian menunjukkan peningkatan pada tiga kompetensi utama: manajerial (perencanaan strategis), komunikasi lintas budaya (sensitivitas budaya), dan literasi akuntansi (transparansi dana). Sinergi kompetensi ini membantu dosen merancang proposal PKM yang realistis, layak mendatangkan pendanaan, serta relevan dengan SDG 4, 8, 9, 11, dan 17. Program pertukaran jangka pendek ini terbukti efektif menjadi katalis dalam menerapkan agenda global ke dalam aksi pengabdian masyarakat yang berkelanjutan.

Kata kunci: Pengembangan Kapasitas, Kompetensi Dosen, Pertukaran Internasional, PKM Berbasis Sdgs

1. Introduction

The escalating global challenges, particularly climate change and sustainability concerns, have created an urgent demand for a workforce proficient in Environmental, Social, and Governance (ESG) competencies (Chien &Chien, 2025). Higher education institutions (HEIs) stand at a critical juncture in addressing this need, tasked with developing future leaders who are not only literate in sustainability concepts but also equipped with the practical skills to enact meaningful change. This mission aligns with the broader agenda of the United Nations Sustainable Development Goals (SDGs), which call for transformative educational approaches (Chien &Chien, 2025). In response, universities are increasingly embedding sustainability and SDG literacy as core requisites, necessitating a shift from conventional, siloed teaching towards

interdisciplinary and problem-based learning that connects academic theory with complex real-world problems (Argento et al., 2023).

Despite this recognized imperative, significant obstacles hinder the effective integration of comprehensive sustainability education. A primary challenge lies in creating authentic, real-world learning experiences that prepare students for future professional environments requiring robust sustainable development competencies (Hermann et al., 2024). Crucially, the success of any such curricular innovation is contingent upon the readiness of the faculty themselves. Educators must be adept at navigating and teaching complex, multi-faceted sustainability challenges within their research and community engagement initiatives (Kaliappen, 2024). However, current faculty development programs often lack the scope and strategic focus needed to build this specific, interdisciplinary capacity at scale.

This gap underscores the need for innovative approaches to professional development. One promising mechanism is the design of targeted international exchange programs aimed explicitly at enhancing lecturers' capabilities in embedding the SDGs into the tripartite mission of higher education: teaching, research, and community service (Ade-Thurrow & Byker, 2024; Magraner et al., 2025). Such programs offer a unique platform for immersive, cross-cultural learning, facilitating the exchange of pedagogical methodologies and fostering the global competencies essential for 21st-century educators and students (Saaida, 2023). By exposing faculty to diverse institutional models and global sustainability practices, these exchanges can catalyze organizational learning and enhance problem-solving capacities, ultimately bridging the gap between global sustainability agendas and local educational practice.

The integration of these global competencies within higher education is crucial for preparing academics to navigate the complexities of internationalized classrooms, a challenge that necessitates specific teaching skills and often remains underserved by current professional development initiatives (Saaida, 2023). Consequently, enhancing faculty capacity for internationalization involves cultivating not only pedagogical expertise but also an understanding of diverse educational systems and cultural nuances (Forte et al., 2024). Such an approach aims to equip academics with the ability to integrate global learning objectives, which often align with the SDGs, into their curriculum and pedagogy (Abon & Francois, 2023; Husic, 2024). This emphasis on global competency is further amplified by the imperative for universities to prepare students for an interconnected world, addressing challenges such as sustainability, health, and security (Nopas & Kerdsomboon, 2024).

The effectiveness of these efforts, however, is frequently hampered by limitations in internationalization-specific professional development opportunities and insufficient institutional support, which impede faculty readiness and proficiency in integrating global perspectives into their teaching and research (Mananay et al., 2024). In this context, the proactive engagement of faculty in internationalization activities, coupled with continuous professional development, becomes paramount for cultivating dynamic learning environments that foster global competencies in students (Chineme et al., 2019).

2. METHODOLOGY

a. Research Approach and Design

This study employs a qualitative Interpretative Phenomenological Analysis (IPA) to deeply understand the meaning and essence of the experiences of 20 lecturers from the Indonesian Doctoral Fellowship Forum (FORSILADI), who participated in the exchange program. This design is chosen to capture the *lived experience* and subjective perspectives of this specific academic community.

b. Participants and Sampling Technique

The research participants are 20 lecturers who are active members of FORSILADI, selected using purposive sampling based on the following criteria:

- Participated fully in the International Exchange Program to the Greater Bay Area (Hong Kong, Macau, Zhuhai, Shenzhen).
 - Actively involved in managing or implementing Community Service (PKM) programs at their respective institutions.
 - Willing to participate fully in the data collection process.
- The 20 lecturers are from 11 universities, representing the diversity of institutional backgrounds within the FORSILADI network.

c. Data Collection Techniques

Data collection was conducted through triangulation to achieve depth and validity:

- Semi-Structured In-Depth Interviews: Conducted individually with each participant (20 persons) post-program. The interview guide focused on exploring learning experiences, perceptual changes, and the application of tri-disciplinary competencies (managerial, communication, accounting).
- Exploratory Focus Group Discussion (FGD): One FGD session with 8-10 participants to explore group dynamics, collaborative processes, and consensus on the program's impact on PKM planning.
- Reflective Document Analysis: Analysis of mandatory academic travel journals kept during the program and draft PKM proposals developed as program outputs.

d. Data Analysis Technique

Data were analyzed using Interpretative Phenomenological Analysis (IPA) with the following stages:

- 1 Transcription and Immersion: Interview and FGD transcripts were read repeatedly for holistic contextual understanding.
- 2 Theory-Driven Coding: Data were coded with reference to the pre-defined tri-disciplinary competency framework.
- 3 Theme Identification: Codes were grouped to identify major themes emerging from the participants' experiences.
- 4 Interpretation and Presentation: Themes were interpreted to build an analytical narrative on how the exchange program built capacity within the FORSILADI community.

e. Data Validity Assurance

Data validity was ensured through:

- Method Triangulation: Cross-referencing data from interviews, FGD, and documents.
- Member Checking: Verifying interview interpretations with participants.
- Audit Trail: Thoroughly documenting all decision-making processes during data analysis.

f. Research Ethics

This study adheres to ethical principles:

- Informed Consent: Written consent was obtained prior to participation.

- Confidentiality: Participant identities were anonymized in reporting.
- Beneficence Principle: Research findings will be disseminated for the development of the FORSILADI community.

3. RESULTS AND DISCUSSION

This section synthesizes the empirical findings derived from the qualitative data analysis, presenting the identified themes and sub-themes that illustrate the impact of the exchange program on lecturers' competencies for SDGs-aligned PKM. These findings are categorized based on the tri-disciplinary framework, highlighting the advancements in teaching, research, and community engagement capabilities as perceived by the participating lecturers (Chineme et al., 2019). The subsequent discussion will delineate how these experiences contributed to a nuanced understanding of sustainable development goals and their practical integration into academic and community-oriented endeavors, thereby expanding the lecturers' professional horizons (ASEAN Journal of Community Engagement, 2024). The ensuing analysis, grounded in Interpretative Phenomenological Analysis, allowed for a thorough examination of the lecturers' experiential accounts, ensuring the reliability and trustworthiness of the derived insights by systematically comparing recurring ideas across all participants (Ahmad et al., 2019). The iterative process of thematic analysis, encompassing familiarization, initial coding, thematic construction, and refinement, ensured that the emergent themes accurately reflected the participants' perspectives and experiences (Omar, 2023; Wamsler et al., 2023).



Figure 1. International exchange program activities: (a) Academic orientation and institutional briefing session; (b) Observational field study at the innovation exhibition center.

We begin this section with an examination of the empirical findings regarding how the exchange program influenced lecturers' capacity to integrate SDGs into their teaching, research, and community service (Ade-Thurrow & Byker, 2024). Specifically, we analyze how the program fostered enhanced managerial acumen for project execution, improved cross-cultural communication for diverse stakeholder engagement, and refined financial-accounting proficiencies for sustainable resource allocation in PKM initiatives. This discussion elaborates on the observed changes in lecturer behavior and their implications for institutional capacity building, drawing connections between the enhanced individual competencies and their collective impact on advancing the university's sustainability agenda (Price et al., 2024).

4. CONCLUSION

This section synthesizes the key findings of this study, emphasizing the transformative role of the international exchange program in elevating lecturers' competencies to effectively

integrate the SDGs into their professional practices. The findings underscore how targeted professional development, particularly through international collaborations, can significantly enhance pedagogical approaches and foster a deeper understanding of global sustainability challenges (Ade-Thurow & Byker, 2024; Abo-Khalil, 2024). This improved understanding translates into a more profound ability to cultivate a "sustainability mindset" among students, extending their knowledge, developing essential skills, and influencing their attitudes towards sustainable development (Wersun et al., 2019). The study also highlights the critical importance of place-based and transgressive pedagogies, demonstrating how grounding teaching and learning in local contexts through practical, experiential approaches fosters the development of locally relevant competencies and facilitates essential connections between theoretical knowledge and lived experience (Manteaw et al., 2025). This approach not only enriches academic discourse but also equips future professionals with the collaborative and adaptive skills necessary for addressing complex global challenges (Ade-Thurow & Byker, 2024; Manteaw et al., 2025; Vermeulen et al., 2024)

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