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Design as Public Service: Impact of Service-Learning on Civic Interior Design in Cebu, Philippines

Hermie Ray Oplado

Abstract
This study examines the impact of a service-learning interior design course on both students and community partners. Forty undergraduate interior design students at a university in Cebu, Philippines, collaborated with staff from 14 Bureau of Fire Protection (BFP) stations to develop renovation proposals. Data were derived from the students' eight-part final impact reports and analyzed using a qualitative case study approach. The study identifies four core learning themes: understanding spatial systems, communicating design effectively to non-designers, applying legal standards (Republic Act No. 9514), and fostering a civic identity. Notably, the theme of design as a public service emerged consistently across all reports without explicit prompting. Students rated the partnership highly, particularly regarding project relevance and potential implementation. Although findings regarding the community partner are based on student observations rather than direct BFP surveys, the reports suggest that the collaboration provided significant value to firefighters by validating their professional environment after years of neglect. This study demonstrates that well-structured service-learning can enhance student professional development while meaningfully engaging with public-sector partners, offering a replicable pedagogical model for design programs in Southeast Asia.

Keywords: *service-learning, interior design education, student learning outcomes, student-reported community observations, Bureau of Fire Protection, civic design, public safety facility, Philippines*

El diseño como servicio público: Impacto del aprendizaje y servicio en el diseño cívico de interiores en Cebú, Filipinas

Hermie Ray Oplado

Resumen
Este estudio examina el impacto de un curso de aprendizaje y servicio en el ámbito del diseño de interiores, tanto para los estudiantes como para los socios comunitarios. Cuarenta estudiantes universitarios de diseño de interiores, en una universidad de Cebú (Filipinas), colaboraron con personal de 14 estaciones del Cuerpo de Bomberos (Bureau of Fire Protection, BFP por sus siglas en inglés) para desarrollar propuestas de renovación. Los datos se obtuvieron a partir de los informes finales de impacto —estructurados en ocho apartados— elaborados por los estudiantes, y se analizaron mediante un enfoque de estudio de caso cualitativo. El estudio identificó cuatro ejes temáticos de aprendizaje: la comprensión de los sistemas espaciales, la comunicación eficaz del diseño a personas ajenas a la disciplina del diseño, la aplicación de normativas legales (Ley de la República n.º 9514) y el fomento de una identidad cívica. Cabe destacar que el concepto del diseño como servicio público apareció de forma recurrente en todos los informes, sin que se preguntara explícitamente al respecto. Los estudiantes valoraron muy positivamente la colaboración, especialmente en lo que respecta a la relevancia del proyecto y su potencial implementación. Aunque las conclusiones sobre el socio comunitario se basan en las observaciones de los estudiantes —y no en encuestas directas al personal del BFP—, los informes sugieren que la colaboración aportó un valor significativo a los bomberos, al dignificar su entorno profesional tras años de abandono. Este estudio demuestra que un modelo de aprendizaje y servicio bien estructurado puede potenciar el desarrollo profesional de los estudiantes y fomentar una interacción significativa con entidades del sector público, ofreciendo así un modelo pedagógico replicable para programas de diseño en el sudeste asiático.

Palabras clave: *Aprendizaje y servicio, educación en diseño de interiores, resultados de aprendizaje de los estudiantes, observaciones de la comunidad reportadas por los estudiantes, Oficina de Protección contra Incendios, diseño cívico, instalaciones de seguridad pública, Filipinas*

*Editors' Note: Translation provided by **Karla Díaz Freire***
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Introduction

Service-learning has a special place in design education. An internship mostly helps the student. Volunteer work mostly helps the community. Service-learning tries to do both at once: it helps students learn while it meets a real need in the community (Bringle & Hatcher, 1995; Eyler & Giles, 1999; Jacoby, 1996). When it works well, students learn more because the project is real, and the community benefits more because the people doing the work are also learning as they go.

This paper examines the outcomes of a service-learning interior design course for two groups, but only as seen from the student perspective: (1) the interior design students who designed renovation plans for Bureau of Fire Protection (BFP) fire stations in Cebu, Philippines, and (2) the BFP staff who worked with them, as described by those students. The course ran in an undergraduate Interior Design program at a university in Cebu during the first semester of the Academic Year 2025–2026. It is part of the university's Community Extension Service (CES) work, which the Commission on Higher Education requires of Philippine universities (Commission on Higher Education, 2012). Forty students each designed a renovation plan for one of 14 BFP fire stations. Each student visited their station and held a focus group discussion with the staff there. This paper uses the 40 impact reports the students wrote, to see what students said they learned and how they described BFP staff reacting to the project.

This research prioritizes a student-centered lens, capturing the lived experiences and perceptions of the designers as they navigated the complexities of community engagement. By focusing on student-reported data, the study provides a rich, insight-driven perspective on how emerging professionals interpret partnership dynamics and stakeholder needs. While these accounts represent the students' subjective observations rather than independent community surveys, they offer a uniquely valuable window into the cognitive and professional development that occurs when students interface with public-sector partners. This approach allows for a deep exploration of the pedagogical impact and the nuances of service-learning through the eyes of the learners themselves, providing essential context for the findings detailed in Sections 5 and 6.

Fire stations in the Philippines often lack proper space and operate in facilities built prior to modern emergency operational standards (Bureau of Fire Protection, 2021). Many operate in buildings that were never built for emergency work, with old infrastructure, blocked hallways, and poor rest areas for staff. Despite doing important public work, these buildings get little design attention, and they are almost never studied in interior design or architecture research, especially in Southeast Asia. This neglect is not only a practical problem. Research on public-sector workplaces shows that the physical space where people work affects morale and how valued they feel (Ferreira, 2011). When a public building is left in poor condition for a long time, the people who work there can start to feel that the institution does not care about them, on top of the everyday problems the poor space itself causes (Clayton et al., 2014). This study looks at that gap and, at the same time, describes a service-learning model that other design programs in the region could use.

This paper adds to three areas that have not been studied much: service-learning in interior design education in Southeast Asia; how students see their experience working with public-sector partners; and how civic engagement shapes a design student's sense of professional identity. The rest of the paper reviews earlier research, explains the method and ethics, describes the studio, reports the four learning themes and what students said about the partnership, and discusses what this means, including the challenge raised by Stoecker and Tryon (2009) that service-learning can help students more than it helps the community. This challenge shapes the whole discussion. The paper ends with the limits of the study and ideas for future work that would include the community's own voice.

Literature Review

Service-Learning and Its Distinctive Educational Value

Service-learning is a way of teaching where students do real community work that is tied to what they are learning in class, with built-in time to reflect on the experience (Bringle & Hatcher, 1995). Eyler and Giles (1999) found that students in service-learning classes gained more in critical thinking and in understanding social issues than students in regular classes. Coelho and Menezes (2021) found that service-learning builds more than job skills. It also builds a stronger sense of social responsibility and a better understanding of how surroundings affect people's well-being.

In design fields, service-learning has been proposed as a response to the limitations of traditional design studios. Dutton (1991) argued that design education should address the social, cultural, and power relations embedded in studio teaching, rather than focus only on design skills. Salama (2015) applied this same criticism to interior design, without social context produces graduates who do not understand the public side of arguing that a curriculum their work. Service-learning fixes this through real experience: when students design for real people with real needs, the effects of their choices become clear in a way that made-up projects cannot show.

Student Learning Outcomes in Service-Learning Design Studios

Zollinger et al. (2009) built the most widely used framework for service-learning in interior design. They named three things a project needs: a real community need, clear learning goals, and a structured way to reflect on the experience. They found that students in community-based studios got better at spotting spatial problems, understanding user needs, and communicating professionally, compared to students working on made-up projects. Hess and Fila (2016) called this "empathic knowledge," meaning an understanding of user needs that arises from real contact with people, which a fictional profile cannot provide.

Research on community-based design studios shows real gains in spatial analysis and in talking with stakeholders, and working directly with community members builds skills, such as handling uncertainty, that a studio with fixed rules cannot teach (Dhadphale & Wicks, 2022). Community-engaged design studies demonstrate that service-learning projects reshape traditional pedagogical boundaries and steer how students view their responsibility toward underserved communities (Dickinson, 2015; Hicks & Radtke, 2015). Jain Kwon and Scolere (2025) found that co-design methods in interior design courses help students turn what community members say into real design decisions—a skill this study tests directly in the fire station setting.

Community Partner Perspectives in Service-Learning

Less research has looked at how community partners experience service-learning than at how students experience it (Sandy & Holland, 2006; Stoecker & Tryon, 2009). Sandy and Holland (2006) found that how satisfied a community partner feels depends mostly on whether the work was genuinely useful and on the quality of the relationship, specifically whether the partner felt heard and treated as an expert on their own situation. This places the partner's perception of relevance at the center of their satisfaction (Sandy & Holland, 2006). Stoecker and Tryon (2009) raised a challenging question: Does service-learning sometimes help students more than the community, producing work that is good for learning but not very useful to the partner? This question shapes how this study reads its own partnership data, and it matters even more here, because every partnership finding in this paper comes from students, not from the partner directly.

Service-Learning in Philippine Higher Education

In the Philippines, the Commission on Higher Education formally requires universities to do Community Extension Service (CES) work (Commission on Higher Education, 2012). This gives service-learning a more solid institutional base in the Philippines than in many other Southeast Asian countries. Still, few published studies look closely at CES projects inside interior design studio courses. This paper adds a

documented case study to that gap, while being clear that the partner-side evidence it reports comes from students, not from BFP directly.

The collaboration between BFP Region 7 and the university studied here was set up inside this CES system. It is not a separate agreement with a long history of its own. At the university level, the project was approved through the standard CES process: a CES Form A proposal was filed at the start of the semester for each fire station. Each form named the course instructors as faculty leads and went through a set approval chain: the Program Coordinator, the Department Chairman, the School CES Coordinator, the Dean, the CES Director, and finally the Vice President for Academic Affairs. This chain is documented in the project's CES proposal and completion-report files for each station.

At the level of each fire station, the partnership was also set up through a Memorandum of Understanding (MOU) signed by the BFP station, the university's Community Extension Services office, and the named student designers, with the course instructors and school officers signing as witnesses. As one example, the MOU for the BFP Region 7 Compostela Fire Station project was signed on October 9, 2025, right at the start of the semester the project ran in. It set out what access students had to the site, what the station had to do, such as orientation and safety, what role the university's CES office played, and made clear that the resulting design proposals were academic work only, not a binding plan. Similar MOUs and proposals were filed for each of the 14 stations in the project.

This partnership is established on a semesterly basis within the university's existing CES framework and formalized at each site through individual Memoranda of Understanding (MOU). Consequently, this project does not represent a long-standing, multi-year collaboration between the university and the BFP. This distinction is critical for interpreting the study's findings and is further addressed in the limitations section (7.5).

Methodology

Research Design

This study uses a qualitative case study approach (Yin, 2018). We used thematic analysis (Braun & Clarke, 2006) on four parts of each student impact report: Learning and Reflection, Outcomes and Personal Impact, Evaluation of Partnership, and Conclusions. This paper focuses on what students learned and on how students saw the partnership; the design findings themselves are reported separately. The coding was reflexive, meaning the themes came from the data itself rather than from a fixed list decided in advance, except for the five partnership rating categories, which were already built into the report form.

Trustworthiness of the Inductive Analysis

To check how trustworthy this analysis is, we used four standard checks from qualitative research. First, credibility: each of the 40 reports was coded using the same method, and every theme is backed by direct quotes from students. Second, transferability: we describe the setting, the partnership, and how the reports were produced in enough detail that readers can judge whether the findings might apply elsewhere. Third, dependability: every student used the same eight-part report form, so the data are comparable across all 40 reports. Fourth, confirmability: we include direct quotes throughout so readers can check our interpretation against what students actually wrote.

Study Context and Dataset

The project ran in the first semester of AY 2025–2026, in an undergraduate Interior Design studio course at a university in Cebu, Philippines, as part of its CES work. Forty students worked independently, each assigned to one of the 14 BFP fire stations in Cebu City, Mandaue City, Lapu-Lapu City, and Compostela. The project ran from October to December 2025. Each student wrote a standard eight-part impact report: Introduction; Project Description; Situational Analysis; Design Response; Learning and Reflection; Outcomes and Personal Impact; Evaluation of Partnership; and a Quantitative Summary. In

the Evaluation of Partnership section, students rated the collaboration with BFP on a 5-point scale across five areas: how responsive BFP officers were, how easy it was to get information, how relevant the project was to community need, how much mutual respect and cooperation there was, and how likely the work was to be used later.

The course instructors played three roles at once, all recorded in the project's records. As faculty leads named on each station's CES proposal, they were academically responsible for the studio and its CES component. As design mentors, they held scheduled design-consultation sessions with each student—recorded station by station in the CES completion reports—reviewing each proposal for whether it was workable and met the fire code before it was shown to the community. And as witnesses on each MOU, they were listed alongside the Program Coordinator and Department Chairman, tying the academic unit's oversight to the agreement at each site. This three-part role is discussed again as a matter of positionality in Section 3.6.

Stations are coded FS-A through FS-N in this paper. Table 1 shows how many reports came from each station cluster. As explained in Section 3.5, station location and physical description are not linked to individual codes here. Instead, they are summarized together, just below the table.

Table 1.

How Many Reports Came From Each Station

Station Code	Reports
FS-A	5
FS-B	4
FS-C	4
FS-D	4
FS-E	4
FS-F	3
FS-G	3
FS-H	3
FS-I	2
FS-J	2
FS-K	2
FS-L	1
FS-M	1
FS-N	2
Total	**40**

Note. Station codes are assigned for anonymization purposes. They do not imply ranking or hierarchy.

Distributed across four municipalities in the Cebu area—Cebu City, Mandaue City, Lapu-Lapu City, and Compostela—the 14 station clusters produced between one and five reports each. These facilities exhibited considerable architectural diversity, spanning multi-level urban sub-stations, historic district facilities, a site repurposed from a shipping container, and an installation situated within a barangay administrative hall. This overview captures the overall composition and scope of the evaluated facilities.

Focus Group Discussion Design

The focus group discussion (FGD) was the main way students and BFP staff interacted. Each student held one FGD with staff at their assigned station during the first site visit. The FGD covered the physical condition of the space, how it was laid out and used, how people and equipment moved through it,

storage, and general environmental quality. Students used what they learned in the FGD to build their design program and their analysis of the site. Because students wrote their impact reports at the end of the semester, the quotes in those reports are the students' memory of the FGD and the final presentation, not word-for-word transcripts, and we treat them that way in this analysis.

Ethics Statement and Consent

This study conducts a retrospective thematic analysis of student impact reports, which were produced as mandatory coursework for a Community Extension Service (CES) studio. The research protocol involved no experimental interventions, additional data collection, or medical procedures beyond standard course requirements. Consequently, the study qualifies for an exemption from formal institutional review, as it relies exclusively on preexisting academic records from which all personally identifiable information has been redacted, in accordance with guidelines from the American Educational Research Association (2011).

At the semester's outset, students were informed via the course syllabus and in-class briefings that their impact reports will be utilized for subsequent academic research in an anonymized format. No student names or identifiers are included in this manuscript. Fire stations are coded (FS-A through FS-N), and BFP personnel names have been omitted. Interactions between students and BFP staff, including focus group discussions (FGDs), were conducted as standard components of the university's community partnership framework, rendering separate informed consent forms for these standard service interactions unnecessary.

A critical privacy consideration involves the potential traceability of station codes to specific locations. Given the variable report frequency per station (n = 1–5), there remains a theoretical risk that participants, instructors, or BFP staff could identify individual sites or contributors. Although students were notified of the potential for anonymous data utilization, explicit consent regarding this specific residual risk was not formally solicited. To mitigate this, station data have been aggregated: Table 1 presents the station codes and corresponding report counts solely, while location and site characteristics are synthesized collectively rather than individually. This systematic decoupling of identifiers from site-specific details safeguards participant privacy. Future research initiatives of this nature should consider seeking full ethics board approval rather than relying on exemption protocols to ensure robust management of privacy concerns within small-scale partner organizations.

Positionality

This study is inherently situated within the instructor's dual role as both the designer of the service-learning studio and the researcher analyzing the outcomes. This proximity provides a unique methodological advantage, offering an intimate understanding of the project's pedagogical intent, the institutional requirements of the Community Extension Service mandate, and the nuances of student-site interactions that an external observer might overlook. By leveraging this insider perspective, the analysis is better equipped to interpret the students' design processes and the complexities of their professional development. Furthermore, this study is reflexive; I recognize my positionality—not merely as an educator, but as a researcher operating within the distinct socioeconomic landscape of the Philippines. This awareness ensures that the interpretation of student reflections remains deeply grounded in the local community context, acknowledging the specific cultural and institutional realities that shape public-sector service work.

The Service-Learning Studio: Structure and Process

The studio project followed the framework built by Zollinger et al. (2009) and matched the CHED CES policy (Commission on Higher Education, 2012). It ran in four phases across one semester.

In Phase 1, students visited their assigned fire station to observe the site and hold a focus group discussion with the staff. They looked at the physical condition of the space, how it was arranged and

used, how people and equipment moved through it, storage capacities, and the overall environmental quality. The FGDs were meant to capture what staff knew about spatial problems and what they wanted to improve. In Phase 2, from October to November 2025, students turned what they found into a design plan and researched relevant rules, including Republic Act No. 9514, the Revised Fire Code of the Philippines (Republic Act No. 9514, 2008), which sets minimum standards for materials, exit widths, kitchen fire suppression, non-slip flooring, emergency lighting, and other safety features required in fire stations and similar buildings. In Phase 3, each student developed a schematic-level renovation design. In Phase 4, students presented their proposals to panels that included BFP officers and station staff, who gave direct feedback. Students then wrote their impact reports as their final assignment.

Students worked alone rather than in teams, so each station got one proposal per student assigned to it. Stations with more than one student got several separate proposals, more like a menu of design options than one fixed solution. As discussed in the findings and discussion sections, this setup turned out to help both learning and practical outcomes.

Student Learning Outcomes: Four Themes

Coding the Learning and Reflection, Outcomes, and Conclusions sections of all 40 reports produced four themes. None of these were built into the report form ahead of time. All of them came out of the data itself. Table 2 shows the themes and how often they appeared.

Table 2.

Student Learning Themes: How Often They Appeared

Learning Theme	Reports	Stations	What It Looked Like
Spatial diagnostics and systems thinking	40/40	14/14	Students learned to trace root causes of spatial problems, not just the symptoms, and to see how one spatial failure creates problems throughout a station.
Professional communication with non-design stakeholders	40/40	14/14	Students learned to explain design choices in plain, practical terms, and to take feedback about how well a design works, not just how it looks.
Policy-grounded design practice	34/40	12/14	Students cited specific sections of the Revised Fire Code in their designs, treating fixes as legal requirements, not just improvements.
Civic identity: design as public responsibility	40/40	14/14	Students wrote, without being asked, about the public meaning of their work: firefighter safety, faster emergency response, and institutional dignity.

Note. Counts come from coding the Learning and Reflection, Outcomes, and Conclusions sections of all 40 reports.

Spatial Diagnostics and Systems Thinking

In all 40 reports, students showed a change in how they looked at a space: instead of judging it only by looks or by whether it worked, they began to see it as a system, where a decision in one part of a building affects the rest of it. Students described this change as something the real project taught them, not something a made-up class project could have taught. Across different stations, students described learning to trace how a blocked hallway slowed down response time, how a lack of ventilation in one room caused water damage throughout a building, and how moving one storage unit could open up, or block, the emergency path to the fire trucks. Students called this way of seeing new—something the project itself gave them.

Reports from the stations with the tightest space, especially FS-K, where the whole station worked out of a 40-foot cargo container, described this skill most clearly. Students at FS-K said they had to use precision-based spatial organization, meaning every design choice had to earn its space, with no room for anything purely decorative. One student wrote it this way:

> I had to adopt precision-based spatial organization and go beyond conventional design solutions because of the severe limitations of a 40-foot cargo van. I discovered how to recognize "dead spaces" and use modular integrated solutions to maximize every available inch. The RESHAPE project taught me that interior design is an essential part of the response chain in emergency operations.—*Student report, FS-K*

Across the dataset, this theme did not come up as a vague claim about how important design is. It came up as specific, grounded examples of a new way of seeing. Students at FS-D said that "every layout, from the width of a corridor to the placement of storage, must be evaluated based on its impact on response time." Students at FS-B said they learned to read a floor plan as "a sequence of high-stakes movements" rather than as a set of rooms. Students at FS-I traced building damage caused by a lack of bathroom ventilation back to its root cause, calling this proof that "interior design is a form of systems thinking." This same idea showing up across 14 different stations suggests the learning came from the nature of the project itself, not from anything specific to one station.

Professional Communication with Non-Design Stakeholders

All 40 reports showed growth in how students explained design to people who judge a space by how well it works, not by how it looks. BFP staff judged proposals on whether they would actually work: would hallways stay clear for emergencies, would storage hold what staff really needed to store, would the dormitory layout let people rest without being disturbed. This way of judging design was new to students who were accustomed to presenting to design teachers, and it forced them to rethink how they explained and defended their choices.

Students at several stations said the FGD was the moment the project stopped feeling academic and started feeling real, when hearing the staff describe their daily frustrations in their own words taught them something no written brief could. One of the students at FS-F said that hearing feedback from BFP officers at the final presentation, feedback based only on how well the design would work, not how it looked, was "the most useful critique I have received as a design student." Students at FS-A, FS-C, and FS-J all described the discipline of explaining design in plain words as something that forced them to think more clearly than design-school critique usually does. One FS-C report put it this way:

> This project helped me improve my skills in analyzing spaces and solving layout problems. I also learned how to explain design ideas clearly to people who aren't designers, like the fire station staff. I used sketches, models, and plain language to show how the proposed changes would improve their daily work and emergency response.—*Student report, FS-C*

Students at FS-H and FS-M described a related, deeper shift: learning to tell the difference between what a stakeholder says they want and the real problem underneath it. For example, a request for "more storage" turned out, after more questions, to be a request for storage that did not require staff to cross a busy hallway during shift changes. Treating the FGD as a way to dig out real requirements, not just a wish list, took practice. As one FS-H report put it, it "took a few tries to actually understand; I had to keep asking 'why' until I got past what they wanted to what they needed." This shows that the communication skill built here is not just about using plain language. It is a specific skill: pulling real requirements out of people who are not designers.

This finding matches other research showing that working directly with stakeholders in a design studio builds skills, such as managing uncertainty, that a studio with fixed rules cannot teach (Dhadphale & Wicks, 2022). This study extends that finding to a public-safety setting in Southeast Asia, where the gap in how design students and emergency staff talk to each other is especially wide.

Policy-Grounded Design Practice Through RA 9514

One finding was not expected when this study began: in 34 of the 40 reports, students cited specific parts of Republic Act No. 9514 (2008), the Revised Fire Code of the Philippines, in their analysis and design reasoning. RA 9514 sets minimum standards for materials, exit widths, kitchen fire suppression, non-slip flooring, emergency lighting, and other safety features required in fire stations and similar buildings. This ability to apply real rules to a real building, spotting violations and treating design fixes as legal requirements rather than just improvements, is a professional skill that a made-up class project rarely teaches this well.

Students at FS-G cited Sections 10.2.5.3 and 10.5.2 of RA 9514 to identify material and exit violations in the existing layout. Students at FS-E calculated the gap between the existing hallway width and the width the code requires, treating the renovation not as a nice improvement but as a legal necessity. Several stations, including FS-I, FS-K, and FS-C, cited the code on kitchen fire suppression, non-slip flooring, and emergency lighting. One FS-K report shows how a student built code compliance into the design reasoning:

> The reconstruction closely complies with the objectives of the BFP Modernization Plan and the Fire Code of the Philippines. The project guarantees the facility's long-term safety by addressing code violations through appropriate egress plans and the use of fire-resistant materials, even within the confined dimensions of a cargo container.—*Student report, FS-K*

To address this gap, future iterations of this studio project should incorporate a formal "budget feasibility" component. This could involve direct collaboration with local government finance officers or BFP budget administrators to provide students with a deeper understanding of real-world financial constraints in public projects. Integrating cost-estimation exercises or requiring students to defend the fiscal viability of their safety recommendations would transform the project from a purely technical code-compliance drill into a more holistic exercise in public-sector procurement and resource management.

One limit has to be stated clearly. The RA 9514-based recommendations point out what the law requires; whether the stations can actually afford to make these changes is a separate question this data cannot answer. A legally required fix only becomes a real benefit to the community if the station has the money to carry it out, and this study did not look at station budgets, modernization plans, or how much maintenance work is already overdue. In a normal studio class, the fire code is just an abstract rule applied to a made-up building. When students apply it to a real building, under real rules, and can see what happens when a building does not follow the rules, the code becomes a working design tool. This is a kind of professional learning that no made-up project can teach with the same depth.

Civic Identity: Design as Public Responsibility

The most important finding in this study is that civic identity, a sense of design as public service, showed up in all 40 reports, without being asked for directly. Every student, no matter which station, design

approach, or background, wrote about the public meaning of their design work: how their spatial choices connect to firefighter safety, to how fast emergency crews can respond, and to how the quality of a space tells staff whether their work is respected. The report form never asked about this directly; it only asked about academic and professional outcomes. This theme showed up on its own, again and again, in specific and emotional language, as a response to designing for people who serve the public. One FS-D report shows this clearly and simply:

> The most important thing I learned is that interior design for a fire station is not just about making a room look good, it is actually a tool that helps save lives. By making the floor plan more efficient, we can help firefighters move faster and reduce the time it takes for them to respond to an emergency.—*Student report, FS-D*

Students at FS-I connected this to the bigger picture: "interior design is a critical component of public safety; the effectiveness of our first responders is directly tied to the quality of their built environment." Students at FS-A summed up this shift in one line: "design is more than an aesthetic exercise; it is a responsibility." Students at FS-B connected spatial planning directly to health, describing the separation of contaminated gear from living areas as "a biological filter," not a style choice but a duty to the people who sleep in the station. Students at FS-L connected the look of the station to how firefighters are seen as professionals: "design has the power to restore dignity to spaces that have been neglected for too long."

This theme, showing up in all 40 reports, across all 14 stations, without any prompt from the report form, matters both for teaching and for theory. Within the reports, students most often traced this shift back to direct contact: the FGDs and the final presentations, where staff described their daily work, their frustrations, and their sense of public duty in their own words. It is hard to fully separate what caused this shift: the consultation itself; the trust and relationships built along the way; or the class activities and reflection built into the course before, during, and after the site visits. But the quotes above suggest that direct consultation and the relationships formed were the main trigger. This matches Coelho and Menezes (2021), who found that service-learning builds civic identity in ways that go beyond job skills. This study adds to that finding by showing that a single, well-designed service-learning project can produce this shift when the community need is real, the contact with stakeholders is direct and respectful, and the design problem has clear human stakes.

Community Partnership Impact

The impact on community partners is explored here through a sophisticated, student-centered analytical framework. By leveraging the students' direct observations and reflections, this section uncovers the rich relational and operational dynamics of the partnership as experienced by the designers. This student-reported perspective is uniquely positioned to capture the immediate, site-level interactions and professional shifts that occur during service-learning, offering a nuanced account of how public-sector personnel engage with design intervention from the viewpoint of the emerging professionals on site.

Partnership Evaluation Ratings

In the Evaluation of Partnership section, students rated their collaboration with BFP on a five-point scale across five areas. Table 3 shows these student-given ratings for 39 reports. One FS-H report marked all five areas as not applicable and is left out of this table.

Table 3.

How Students Rated the Partnership (39 reports with complete ratings)

Dimension	Rating	Rating	Rating	Most Common	What This Shows
Responsiveness of BFP officers	4	14	21	5	Most reports gave a perfect score. A rating of 3 was linked to how busy officers were, not to a lack of willingness. No rating fell below 3.
Accessibility of information	5	18	16	4	Slightly lower; some stations noted limited access to certain operational areas. No rating fell below 3.
Relevance of project to community needs	0	8	31	5	The highest-rated area in the whole dataset. No report rated this below 4.
Mutual respect and cooperation	1	9	29	5	Consistently high. All 40 reports describe BFP staff as professional and open. No conflict was recorded.
Potential for continuity	1	11	27	5	High across all stations. Several reports note BFP officers saying they plan to keep the proposals for future renovation planning.

Note. Ratings of 1 or 2 did not appear in any report for any area. One FS-H report marked all areas N/A and is not included. Counts come from the standard checkboxes on the report form.

Relevance of the project to community need got the highest and most consistent score in the whole dataset: 31 of 39 reports rated it 5, and the rest rated it 4. As students saw it, this reflects a real and unmet need: BFP stations with clear problems that no design professional had looked at before. It is also worth noting that no rating anywhere fell below 3. The written parts of the reports do not suggest students avoided giving low scores out of politeness; students who gave a 3 explained exactly why, usually pointing to how busy officers were rather than to any lack of cooperation. These ratings describe how students saw the partnership. They do not describe how BFP staff themselves would have rated it.

How BFP Personnel Responded to the Partnership

The written parts of the Evaluation of Partnership section add detail that the ratings alone cannot show. What follows is a summary of what students reported about how BFP staff engaged with the project, not a summary based on asking BFP staff directly. What comes through is not just that BFP staff cooperated. Students often described BFP staff as finding real meaning in being treated as design partners, sometimes more than the students expected.

Reports from FS-L gave the strongest account of the partnership in the whole dataset. According to the student report, officers gave every category a perfect score and were described as "genuinely car[ing] about improving their station" and "enthusiastic about the design possibilities." Officers shared detailed information about building problems and daily frustrations, an openness students linked to how well the first FGD went. Students at FS-K described BFP officers as "immediately available for all scheduled consultations," giving information so detailed that one student called it "the most technically useful design brief I have ever received." Students at FS-G described officers as "very cooperative, providing detailed insights into routines, challenges, and station needs," and also gave every category a perfect score. Students at FS-B noted that officers stayed engaged "throughout the collaboration," even with a demanding work schedule.

Not every partnership went perfectly smooth. Students at FS-E were honest that officers were not always quick to respond, and put this down to how busy the officers were, not to a lack of interest: "It was understandable that they would not be as responsive as we would have wanted them to be, as they are pretty occupied and busy with operations." This kind of honest report, naming a real limit while still valuing the partnership, shows the kind of professional maturity service-learning can build. It also shows something about the quality of this data: students were not writing to impress anyone. They were writing to be accurate.

The Moment of Recognition

In several station reports, students described a specific moment, usually during the FGD or the final presentation, when BFP staff said this was the first time anyone had asked them what they actually needed in the spaces where they live and work. One FS-C report describes this moment clearly:

> Being physically present in the fire station and listening to the personnel describe their daily experience helped me understand something that no classroom exercise could teach: that these firefighters had accepted conditions they knew were inadequate because no one had ever suggested that improvement was possible. One officer said, in effect: "We didn't know designers could help with this kind of problem." That moment changed how I understand what design is for.—*Student report, FS-C*

Students at FS-D described officers who "expressed genuine hope that the proposals might one day be implemented," while students at FS-I described a partnership that felt like "a collaboration of equals, they knew their station, we knew design, and together we could see things that neither of us could see alone." Across these accounts, a clear pattern shows up in what students reported: BFP staff had come to accept spatial problems they knew were real, because no one had ever suggested that fixing them was possible.

As students saw it, the project broke that pattern, showing that interior design was a resource public-safety facilities could use as well, not just private or commercial clients.

One limit on what this evidence shows must be stated clearly. The idea that being consulted matters on its own is best read as something students observed happening, not as an outcome confirmed by BFP itself. Students reported that being consulted seemed to matter to BFP staff. Whether that impression is accurate, and whether it lasts beyond the semester, are questions this study cannot answer; answering them would need direct measurement from the partner's side. This is not a weakness in how the study was done. It is simply a limit built into the kind of data available, and the conclusion of this paper uses correspondingly careful language because of it.

Proposals Retained for Future Planning

Several reports describe BFP officers, as observed and reported by students, saying they planned to keep the student proposals as a reference for future renovation work, a concrete form of possible value that outlasts the school term. Students at FS-E noted that officers "were planning to propose a design for the new look of the station and expressed that the student proposals would serve as useful reference in that process." Students at FS-G described the proposals as giving BFP officers "documented evidence of spatial problems and potential solutions, evidence they can use in conversations with local government about renovation priorities." Students at FS-K connected the value of the proposals to BFP's modernization plans, noting that officers said the documents matched goals they had not been able to put into spatial terms before. These statements about keeping the proposals come from students, not directly from the BFP. Whether any proposal is actually used in real BFP renovation work cannot be determined from this study; that would need follow-up research over a longer period.

Student Recommendations for Future Projects

The Conclusions sections of several reports included students' own suggestions for improving future service-learning projects like this one. These suggestions are, in themselves, a sign of how deeply students engaged with the experience: they thought about it carefully enough to reflect on how it was structured and to suggest changes that would make it more useful to the community next time. Students at FS-A suggested keeping in touch with BFP stations after the project ends, to track whether proposals get used or changed. Students at FS-C suggested bringing staff into the design process partway through, for feedback on early proposals, not only at the start for gathering information. Students at FS-J suggested making the university-BFP partnership more formal through a written agreement, which could lead to more structured, ongoing work and, eventually, to real renovations instead of only design proposals. This matches what Section 2.4 describes: for this project, a project-specific agreement was already in place at each site for the term.

Discussion

The Civic Identity Finding: What It Means for Design Education

The fact that civic identity showed up in all 40 reports, without being asked for, is the most important finding of this study, in terms of what it means for the field. Every student connected their design work to a wider public responsibility, in specific, real, and emotional language, without being asked to. Coelho and Menezes (2021) found that service-learning builds civic development, but usually across several experiences over a whole program. This study suggests that one well-designed project can produce this same shift, when the community need is real, contact with stakeholders is direct, and the design problem has clear human stakes. Fire stations, as public buildings staffed around the clock by people serving the public, seem to be an especially strong setting for building this kind of professional identity.

This has a direct lesson for how design courses are built. If building civic identity in interior design students is a goal worth having, and CHED Memorandum Order No. 46 (Commission on Higher

Education, 2012) suggests it should be, then service-learning built around a real community need may be the most direct and reliable way to reach it. Teaching students about the social role of design, no matter how well done, does not seem to build the same depth of civic commitment as actually designing for someone whose safety and dignity depend on the quality of the space.

What Makes This Service-Learning Project Different

Three things combine to make this project stand out, and it is this combination that produced the range of learning documented across all four themes. First, public-safety buildings have been almost completely missing from service-learning research in interior design; earlier work has mostly looked at homes, schools, healthcare settings, and commercial spaces (Dickinson, 2015; Hess & Fila, 2016; Kwon & Scolere, 2025; Zollinger et al., 2009), rarely a 24-hour public-safety workplace. Second, Republic Act No. 9514 (2008) gave student proposals a binding outside standard: students were judged not by taste or instructor preference, but by whether their designs followed real Philippine law that they had to read, understand, and apply to a real building. Third, because a fire station runs around the clock, staff judged proposals by a strict operational standard, asking whether a design would work for shift changes, alarms, and gear cycles, rather than by comfort or looks, more sharply than in most service-learning projects using daytime-only buildings. Each of these three things has shown up on its own in earlier work; it is their combination in one project that seems to have produced the wide range of learning documented here.

The Community Impact as a Relational Outcome

The finding that BFP staff, as students reported it, found being consulted meaningful in itself, apart from the actual proposals, highlights an aspect of community engagement that Sandy and Holland (2006) identified but that is rarely documented in such detail. Sandy and Holland found that community partners valued being listened to and treated as experts in their own situation. This study shows, through student reports, what that can look like at one extreme: when a community partner has been overlooked for so long that the simple act of getting real design attention feels, to the student watching it happen, like a meaningful event in its own right.

One limitation needs to be stated clearly here as well: This is a student's observation of what looked like a meaningful experience for someone else, not a confirmed outcome. What this study actually shows is that students perceived a shift, and that students perceived BFP staff as responding in a meaningful way to being consulted. The harder claim—that BFP staff themselves genuinely felt this way, and that the feeling lasted beyond the school term—is not confirmed by this study. Therefore, this finding is reported here as something that happened along the way—an engagement that students read as meaningful, not as a proven outcome. This is a more careful, and less encouraging, reading of the data. But it is the honest one, and it is what the available data can actually support.

Addressing the Stoecker-Tryon Challenge

Stoecker and Tryon (2009) raised a challenging question: Does service-learning sometimes help students more than it helps the community, producing work that is good for learning but not very useful to the partner? The student-reported data here answer this question in two careful ways. First, students reported two kinds of community benefit: a practical one, proposals kept as a reference for planning, and a relational one, breaking the pattern of accepting poor conditions, through real design attention. The relational benefit, as students described it, feels like a genuine part of the partnership experience. Whether it lasts is not yet known and needs follow-up from the partner's side. Second, the students' own suggestions, especially the idea of a formal written agreement, show that this group of students was already thinking about how to deepen the community benefits next time, even though, as Section 2.4

explains, a project-specific agreement was already in place at the site level for this term. This kind of reflection is itself a result of the service-learning experience worth noting.

Limitations

This study has several limits. First, all the design proposals are at the schematic level; whether they are structurally, financially, and legally workable was not fully checked, and the numbers students give in their reports are their own estimates, not independently confirmed measurements. Second, this study covers one school term, at one university, with one government partner, which limits how far the findings can be generalized; related to this, as Section 2.4 explains, the university-BFP partnership itself is a project-specific arrangement set up again each term, not a long-running multi-year partnership, which limits even further how the findings should be applied to future groups unless the institutions commit to keep working together. Third, and most important for how this paper should be read: all the data about community impact come from student reports, not from separate surveys of BFP staff; every claim about how BFP staff experienced the partnership is, at best, something a student observed, not a confirmed partner-side outcome. Future studies should build and use a separate survey tool for community partners, and future versions of this project should include BFP staff in evaluating the partnership directly, even without a formal study behind it. Fourth, the RA 9514-based design suggestions highlight what the law requires, but whether stations can afford these changes was not checked in this study—a real gap, since legally required fixes only help the community if the station actually has the money to make them. Fifth, this study cannot yet say whether any proposal was actually used in real BFP renovation work; that would need follow-up research over a longer period. Sixth, the trustworthiness checks in Section 3.2 apply only to the analysis of the student reports themselves; they cannot make claims about the BFP side being more trustworthy without separate confirmation from BFP. Seventh, as explained in Section 3.5, reporting by station still carries some risk of identifying small partner groups, even with names fully removed.

Conclusion

This paper has described what students learned and how students experienced the community partnership in a service-learning interior design studio, in which 40 students at a university in Cebu, Philippines, designed renovation proposals for 14 BFP fire stations. Four themes emerged from the 40 reports: viewing a space as a system; communicating clearly with people who are not designers; using the law (RA 9514) to guide design choices; and civic identity, seeing design as a form of public service. This fourth theme, showing up on its own in every single report, is the most important finding: one well-built project can build this sense of civic design responsibility, when the community need is real, and contact with stakeholders is direct.

On the partnership side, this paper has only reported what students said about how BFP staff responded. Within that limit, students described two kinds of value the project created: a practical one, proposals kept as a reference for future planning, and a relational one, breaking the pattern of accepting poor working conditions, through real design attention. Several students wrote that firefighters told them this was the first time anyone had asked what they needed in the spaces where they live and work. Whether these student-reported responses reflect something confirmed on BFP's side, and whether it lasts beyond the school term, is something this study cannot answer. The honest answer is that the partner-side evidence here comes from students, and confirming it would need direct measurement from the partner's side.

This study is the first peer-reviewed record of a service-learning interior design studio built around BFP fire station renovation in the Philippines, and it offers a teaching model that other design programs in Southeast Asia can copy. It also offers a method other programs can reuse: the standardized student impact report, a tool for turning community-based studio work into usable research data. It also lays out, step by step, how a partnership like this gets set up within the Philippine CES system: through project-specific proposal approval and site-level agreements, rather than one standing agreement. Programs that wish to replicate this model may find this description useful in their own work.

Future work should: (a) build a longer-term, formal partnership between the university and BFP, beyond the project-specific agreements used here; (b) build and use survey tools that ask BFP staff directly, so their side of the story is not only told through students; (c) track, over time, whether the proposals get used in real renovation planning; (d) study whether stations can actually afford the changes the RA 9514-based recommendations call for, against real station and local-government budgets; and (e) apply this service-learning model to other public buildings that are also overlooked. If future research confirms what students reported here, and if these proposals help build even a few better fire stations for firefighters in Cebu, the case for service-learning in interior design education will be made not only in the pages of this journal, but in the buildings themselves. Until that partner-side evidence is gathered, the case rests on what students reported, and any claim about what this project meant to BFP stays carefully limited.

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