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Community Engaged Culturally Sensitive Pharmacy Design

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Abstract

This article presents lessons learned from a collaborative community engaged culturally sensitive pharmacy project in a pharmacy focused on patient-centered care. The goal of the project was to provide students a service-learning design experience aimed at bridging the gap between theory and practice in an authentic setting. Interior design students gained disciplinary and cross-cultural experiences while problem solving for the pharmacy. Students reported learning about the community, gaining better understanding of pharmacy needs and cultural aspects as major benefits of this experience. The authors' present their findings as a model for educators interested in culturally sensitive pharmacy design.

Introduction

This article presents experiences from a collaborative community engaged culturally sensitive pharmacy project in a Hmong community focused on patient-centered care accomplished in a sophomore interior design course in spring 2017. The goal of this service-learning project was to redesign the existing space of the Phalen Family Hmong community pharmacy to be culturally sensitive while addressing the workflow, display, signage and storage issues in the existing space. The service-learning methodology used in this experience integrates real life community service opportunities into academic curriculum to improve students learning outcomes and promote civic engagement in authentic settings (Asojo, 2013; Asojo, 2016). The importance of service learning in design curriculum is highlighted by the 2017 Council for Interior Design Accreditation (CIDA) standards. Standard 6 on business practices and professionalism recognizes the importance of public service and the expectations are "the interior design program provides exposure to the role and value of public service" (p. 18).

Literature review

Campus Compact (2001) defines service-learning as “an educational methodology which combines community service with academic learning objectives, preparation for community work, and deliberate reflection” (p. V). Service-learning started as a component of K-12 education as a way of infusing civic responsibility and higher level of caring among students and evidence across studies consistently show it has positive effects on students’ learning (Furco and Root, 2010). In higher education, service-learning has been found to equip students with the disposition and aptitude to actively participate in pressing societal issues (Dienhart et al. 2016, Bringle and Hatcher, 1996). Song et al., 2017 found a connection between service-learning, academic achievement and retention of underrepresented students in higher education. Students who participate in service-learning had higher graduation rates and GPA. On the national level, the Association of American Colleges and Universities (AAC&U) national panel in 2002 concluded that through service-learning students became:

1. Empowered through the mastery of intellectual and practical skills.
2. Informed by knowledge about the natural and social worlds and about forms of inquiry basic to these studies.
3. Responsible for their personal actions and for civic values (p. XI).

The Community Service-Learning Center at the University of Minnesota promotes and recognizes service-learning as “a form of experiential learning in which students meet community-identified needs (service), then analyze and reflect on that service (learning). Faculty who teach service-learning classes facilitate students’ analysis and reflection, ensuring productive academic and civic learning.” Service-learning has been found to offer personal and professional benefits to the students, faculty, and community organizations (Community Service-Learning Center, University of Minnesota). The Community Service-Learning Center notes: Students report especially positive results for outcomes of critical thinking, problem solving, understanding of diverse philosophies and cultures, appreciation of differences, independence/interdependence, resilience, and tolerance of ambiguity (p. 1).

From an interior design perspective, Asojo (2013) notes “service-learning is a teaching methodology which incorporates community service with instruction to enrich learning, promote civic responsibility, and inspire lifelong civic engagement” (p. 128). Service-learning, a methodology for bridging the gap between theory and practice, has been used to provide design students experiential learning opportunities in authentic real-life settings (Asojo, 2013; Asojo, 2016; Huber, 2015).

Phalen Family Pharmacy Project

This section discusses pedagogical experiences from the Phalen Family Pharmacy project and findings from the collaborative experience. The Phalen Family Pharmacy project in spring 2017 was a service-learning project in Interior Design Studio IV, a sophomore level interior design course with 25 students at the University of Minnesota. Eleven class objectives were met by this project. They are: apply two- and three-dimensional design elements and principles in design problem solving; understand theories of design and design composition; understand design programming, information gathering research and analysis, client, and user needs; develop a global perspective and approach to thinking and problem-solving; develop the ability to think visually and volumetrically; utilize active listening skills leading to effective interpretation of

requirements; understand space planning, adjacencies, circulation, and articulation and shaping of space; produce presentation and construction drawings for design solutions; apply applicable codes and other standards related to health, safety, and welfare; work collaboratively in a team to produce design solutions; and understand that social and cultural norms may vary from their own and are relevant to making appropriate design decision.

Phalen Family Pharmacy is located in the Hmong shopping center on the east side of St. Paul, Minnesota. Phalen Family Pharmacy focuses on patient-centered care. The pharmacy provides medication for Hmong, Karen, Spanish and English speaking patients. The mission of the pharmacy is to provide services in a culturally competent and sensitive manner to provide a better quality of life for patients. This service learning design project resulted from the pharmacists believing in patient-centered practices and community involvement, which was in concert with the social pharmacy approach of one of the authors (PR) at the University of Minnesota College of Pharmacy.

The design problem focused on redesigning the existing space of the Pharmacy to be culturally sensitive while addressing workflow, storage for filing systems and supplies, innovative ways to display so as to have more sales, display at entrance, signage and waiting area seating. The project occurred over a three-week period with class meeting two days a week in spring semester 2017. On day one, students visited the Pharmacy to meet with the pharmacists and learn about the design issues. Students gathered information such as measurement of the space, photos of the space and the building system information such as finish work, materials and ceiling system. Students had a debriefing and reflection session after the visit and a discussion with Author 2 (PR), professor of social pharmacy, which uncovered additional information. On day two, students presented their existing space analysis, building system report, research and conceptual design ideas. Their conceptual design involved developing concept words, images, and abstract sketches which incorporated elements and principles of design inspired by Hmong culture. These concepts were then translated into schematic sketches of the space, floor plan (2D) and interior vignette sketches (3D). On day three, students presented their schematic design interim presentations where they had the chance to discuss their ideas and get feedback on the ideas.

Days four and five were spent in studio finalizing the design with instructor's feedback and desk critiques. On day six, students presented finalized design drawings to Dr. Lo, one of the owners of the Pharmacy and the team (PR and Larry Nguyen, student pharmacist) from College of Pharmacy, Duluth campus, via WebEx. Student Group A proposed a design solution to help patients understand their health, history, and culture through the arrangement of information, use of materials, and color palette. A red and white palette reflected medical imagery and pharmacy owner's branding. Light colored materials that are hygienic and low maintenance were incorporated as well as wood elements reminiscent of traditional Southeast Asian building materials. Space for informational posters and displays were incorporated to increase health awareness. Historic photos throughout the space represented Hmong culture and pharmaceutical history. Overall, their design proposal balanced western and traditional elements to make customers feel welcome (Figure 1). Student Group B drew inspiration from Hmong clothing and textiles, in order to make the space more inviting to the Hmong and Karen populations. The patterns, colors and forms incorporated in the space were derived from Hmong clothing and textiles (Figure 2). Student Group C proposed a solution reflective of the Hmong and Karen

group through the integration of red and blue colors, natural materials geometric patterns, and textiles. Their overall goal was to create an open space reflective of the culture (Figures 3). Student Group D utilized a minimalist western approach in their design solution. They used lines and forms from the Swiss cross and emerald green color in their design solution (Figures 4). This group did not articulate what cultural elements or inspiration they integrated in their design solution.

Students' reflections were collected at the end of the design experience using open-ended questions on the Moodle course website. A thematic analysis was conducted on the volunteer responses generated by the open-ended questions (Hsieh and Shannon, 2005). The responses were first read multiple times and coded individually by Author 3 (AC). The data was analyzed using a qualitative software, Dedoose. A total of five codes were merged into three categories. The categories were merged based on the similarities where two themes emerged. To test the reliability of the codes, the second coder, Author 1(AO) read each code, relevant categories and themes. They discussed the codes and categories, arbitrated differences, and clarified themes. The two themes arising from this work are intended to capture and integrate the totality of our data. They are presented along with supporting data. The two themes that emerged from the analysis are cultural learning and team aspects from inter-professional environment.

Theme 1: Cultural Learning

In their written reflection, students reported that incorporating cultural aspect in the project was an excellent opportunity. They gained better understanding of the pharmacy and customer needs from the design point of view and they learned about Hmong community and their history in the US. For example, one student elaborates:

"It was interesting to learn about the issues and complications that the Hmong and other refugee groups face when seeking healthcare, especially from western healthcare professionals who don't understand their culture and history."

Another student commented:

"If I were to continue in the field of interior design, I feel this project would have impacted my design choices with respect to the diversity of those around me. I understand that it is always important to focus on the users of the space and the clients rather than my own personal preferences and that it is crucial to thoroughly understand the practices of those whom I am designing for, whether that is researching their needs, desires, or values."

Students noted the importance of aligning goals between clients and business and the importance of openness to multiple ideas. Students valued collaborating with a small business and learning about dealing with budget constraints. The budget constraints is represented in the bellow quote:

"I learned that during final presentation that budget is a big factor. Even though we were not given one, the owner seemed very strict on a budget. In future practices I would definitely like to know of a budget before I start a project."

Theme 2: Team aspects from inter-professional environment

The theme two describes positive aspects of working as a team. The tasks were equally distributed among the team members, team members were willing to share responsibilities, each

team member brought different skills to the team and the project offered an opportunity to connect with real life clients. The bellow excerpt explains the dynamics of a team work.

“We all worked together quite well and our differences made the project more interesting. For instance our different design styles were all combined in order to come up with a truly unique outcome for our final design. It was also interesting to have an architect major in our group and see how she perceived various design problems and solutions.”

While some students perceived their team did not need any improvement, some perceived that more focus was needed and more communication between team members would have improved their group. One student commented:

“Because we all were so different in our design ideas and techniques, there were some instances where we had to discuss more in depth than others because of disagreements. Luckily, if two of us disagreed the third group member often was able to come up with a solution.”

Another student describes:

” I learned that I really enjoy trying to adjust my design style to meet other people's needs. To me, the limited space and lease restrictions Dr. Lo had presented challenges that made the assignment more interesting. I liked feeling that we were creating something that could really improve his business.”

Conclusion

Design problem solving for the Phalen Pharmacy provided many insights. Two main themes that emerged from the students’ reflections were cultural learning and team aspects from inter-professional environment. The student reflections reinforced the strengths of approaching design problem solving through partnerships that seek out multiple perspectives. Furthermore, interior design students gained disciplinary and civic benefits such as application of their course knowledge, opportunities to reflect on their learning, and connect to the community through real life issues. The opportunity to visit the existing space and tour with the clients to gather information and experience the space physically gave students a better understanding of the space, building systems, and requirement for the projects. In their reflections, students supported the idea of design problem solving for real life clients and reported how this community engagement service-learning projects increased their knowledge of issues impacting the community. Students also reported the service-learning project increased their sensitivity and empathy for challenges and issues in the community. The lessons learned from this collaborative community engaged culturally sensitive pharmacy project offer an example for educators interested in bridging the gap between design theory and practice through experiences in authentic settings.

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Below figures 1, 2, 3, 4



Figure 1: Design proposal for Phalen Pharmacy (Source: Noah Exum, Heidi Ludolph and Rosemarie Gregoire, IDES 2604, Spring 2017).

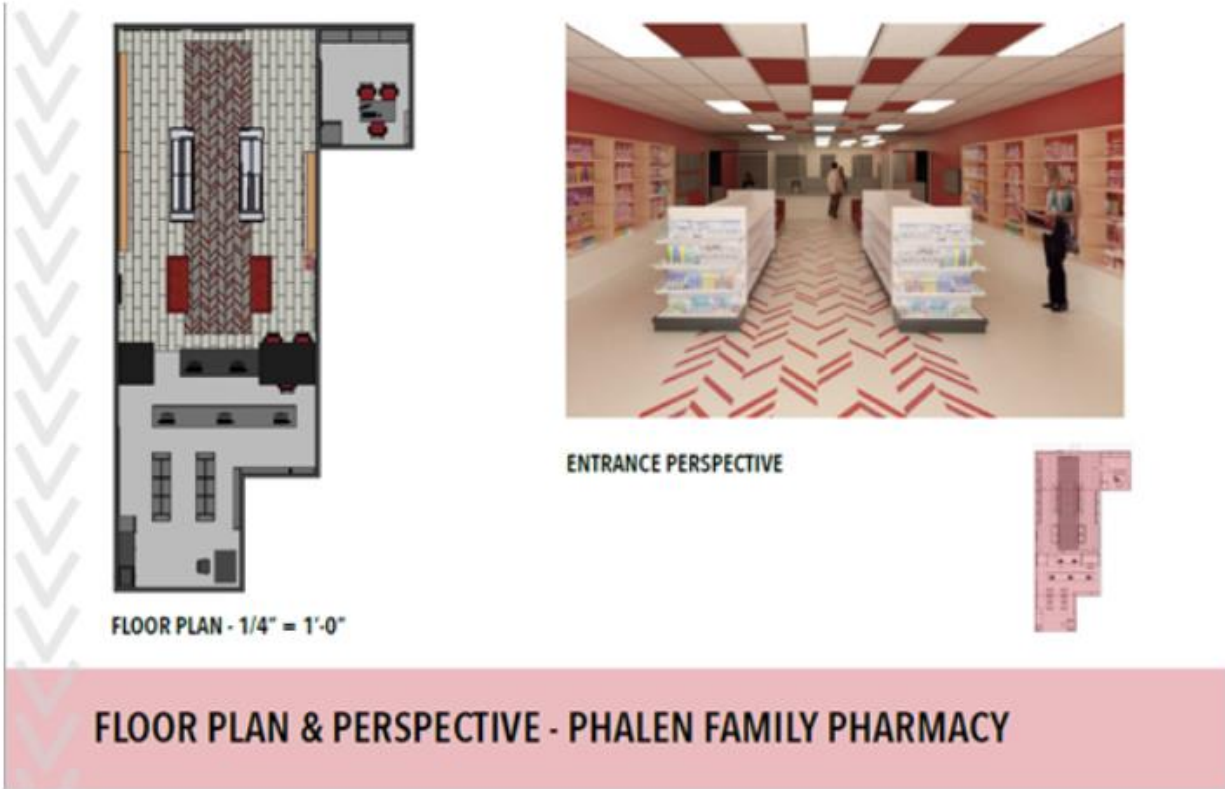
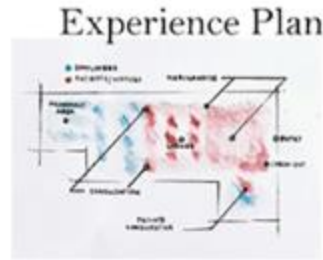
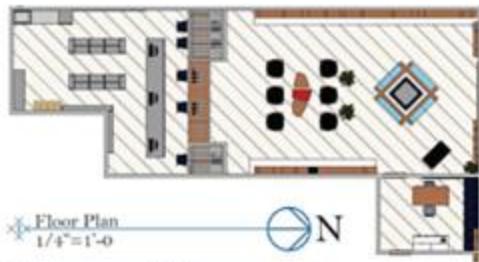


Figure 2: Design Proposal for Phalen Pharmacy (Source: Claire Brendel, Lauren Pahmeier, and Ryan Welters, IDES 2604, Spring 2017)



Concept Statement

The Phalen Pharmacy design will be a place that is functional as a pharmacy but is reflective of the clientele and surroundings. More **storage** will be incorporated throughout the pharmacy in order to hide the boxes and files that take up needed space. The arrangement will be more **open** and less cramped while still allowing **visibility** from front to back. The finishes and accessories will be reflective of the **Hmong/Karen demographic** through **red and blue colors, natural materials, geometric lines, and the usage of textiles**. In all, this will be a design that will increase **foot traffic**, be much more **functional**, and will fit right into the Hmong Village.



Display/Checkout



Central Display



MCM Office



Lounge/East Wall



Lounge/Counseling Window



Figure 3: Design proposal for Phalen Pharmacy (Source: Yizhen Cai, Amber Holte, and Olivia Jones, IDES 2604, Spring 2017).



THE PHALEN FAMILY PHARMACY

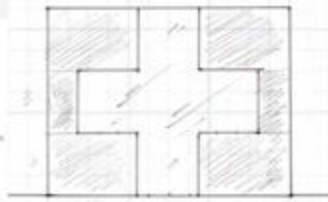
Rachael Springman, Mikaila Kopcho, Karly Basara
IDES 2604
Spring 2017

THE CONCEPT

Inspired by traditional pharmacy architecture, this design is friendly and job-environment with a layout that focuses on functionality and ease of product discovery. Clean lines and a neutral color palette keep the space simple and organized, making it easy for customers to quickly find what they need. Bold, vibrant green accents and unique lighting solutions modernize the space — drawing the eye in and enhancing the visual impact of the products being sold. The cohesive use of the Swiss cross, combined with the application of various green, unifies the design and creates universal understanding for the mission of the space.

GOALS + OBJECTIVES

- Create an updated and welcoming patient focused space
- Reconfigure the existing space to be suitable for modern
- Develop a solution that addresses existing workflow and storage issues
- Develop a solution that encourages people to stay more engaged
- Improve the efficiency of the space



THE PHALEN FAMILY PHARMACY

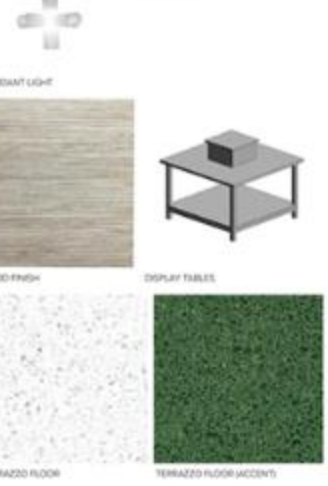


Figure 4: Design proposal for Phalen Pharmacy (Source: Rachael Springman, Mikaila Kopcho, and Karly Basara, IDES 2604, Spring 2017)