

Structured versus unstructured: Modifying the studio to facilitate experiential learning

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Introduction

While there is no consensus on the ideal approach to teaching a planning studio, a clear project and client expectations need to be set up, and both technical knowledge and “soft skills” need to be taught (and evaluated). The conventional studio pedagogy common to disciplines such as architecture and urban design sits somewhat uneasily with what Senbel (2012) calls the “planning workshop”. He asserts that planning studios emphasize team process, working iteratively with a client, and team-based learning with collaboration, as opposed to architecture studios which emphasize strong conceptual design, working iteratively with the professor, and peer-based learning with observation and critique. Since planning studios tend to take more collaborative approaches to problem solving, including facilitating discussions with community members, it is important that healthy group dynamics are fostered and evaluated (Kotval 2003).

This article examines the use of experiential learning in a fourth-year urban design studio at the Dalhousie University School of Planning, in which students produced small-scale urban design and programming elements to improve a public housing community in Halifax, Nova Scotia. The article places particular emphasis on the outcomes of altering the course structure to introduce students gradually to the studio experience. Students developed a set of solutions that the client, a non-profit organization, could implement over time through small-scale grants. An interactive course evaluation shows that students gained new skills that they felt they could apply in planning practice, and strengthened both technical and process-oriented skills. However, this is merely an observation: the modified studio course has only been offered only once. Systematic and longitudinal research would be needed to determine the success of the modified course structure.

Context

At the Dalhousie School of Planning, students have many opportunities to learn from real-world projects. The intensity of the projects and level of independence increases in the fourth year of the Bachelor of Community Design program, where students work on a planning project for a client. Students choose either an urban design or an environmental planning studio, each of which are limited in size to 16 students. This article will focus on the restructuring of the urban design studio held in Fall 2016.

On the surface, experiential learning is a win-win situation: students get the experience they need and small municipalities or non-profits or community-based organizations, often with insufficient human and other resources, are able to get planning projects completed. University planning programs vary in the ways that they integrate experiential learning into courses. For some, it is limited to fourth-year undergraduate students or second-year Masters students, with the understanding that students have developed sufficient understanding of planning history and theory, community engagement strategies, research, and design skills by this time. For others, like the University of Oregon, experiential learning is systematically integrated: the university partners with a different municipality each year, the municipality provides a list of projects they need help with, and different faculties and departments commit to developing workable solutions through course work. Over 25 universities in the US and elsewhere now have programs like the Sustainable City Year Program (University of Oregon 2017), which has been running since 2009. While experiential learning is not as holistically integrated at Dalhousie University, the School of Planning has a long tradition of client-based planning studios and team projects. Students can also complete internships at the applied research units, the Cities and Environment Unit and the Dalhousie Transportation Collaboratory (DalTrac), which offer consultation services to communities.

The structure of the Dalhousie fourth-year undergraduate urban design studio is quite conventional: there are no structured classes involving lectures (e.g. Senbel 2012), and the students spend their entire time working as a group, submitting a mid-term and final report to the instructor and client. As a first-time instructor in this course, I modified the structure in two ways: 1) starting out with content delivery and adding in unstructured work time, and 2) slowly introducing group work so that students have time to build collaboration and consensus-building skills. There were two reasons for this course redesign. First, the complexity of the project required students to learn a significant amount of history, theory, and policy to be able to work respectfully with the client, a non-profit organization founded by low-income visible minority residents of a public housing community. Second, gradually teaching students how to work on a real-world project, including managing group dynamics, setting a timeline, and developing an understanding of costs and implementation, was considered critical to the experiential learning approach.

The experiential learning project

Affordable housing was a timely focus for the urban design studio for several reasons. In the fall of 2016, the Canadian federal government had recently launched the first stage of consultation in the development of its first-ever National Affordable Housing Strategy. Like many Canadian cities, Halifax, Nova Scotia faces serious housing affordability issues, despite its moderate population size (403,390) (Statistics Canada 2017) and median income (\$76,193) (Halifax Regional Municipality 2015). The Halifax Regional Municipality recently partnered with Canada Mortgage and Housing Corporation, United Way, and several public health authorities on a Housing and Homelessness Partnership, which released a Housing Needs Assessment (2015). It

outlined key areas the region needs to focus on: more rental housing, housing for smaller households, and a focus on those with incomes in the bottom five deciles. Developing an experiential learning project with Mulgrave Park, one of Canada's first public housing communities, was facilitated through the Mulgrave Park Caring and Learning Centre, a non-profit organization founded by community members.

Mulgrave Park (see Figure 1) has a multilayered history. In the late 1800s, Halifax was primarily a military town, with the Citadel perched atop its highest point, allowing a panoramic view of the natural, ice-free harbor. The poorest of its 50,000 residents lived near the waterfront in densely packed apartments. Further north, a working-class community, Richmond, developed around a small passenger railway station. Residents could work at the nearby sugar refinery, manufacturing, and military jobs, and could enjoy several amenities including Mulgrave Park, an public park that attracted residents from across town, who would visit by streetcar (Shutlak 2005). On December 6, 1917, the Halifax Explosion devastated much of the city and obliterated most buildings in the Richmond neighbourhood, killing 2,000 people and injuring 9,000. The blast, the largest man-made explosion in the world until Hiroshima, broke windows 100km away (Kernahan, 2011). For many years, the community formerly known as Richmond was used as a dumping ground for explosion debris as the Halifax Relief Commission worked to provide new housing for the 25,000 people left without adequate shelter. Richmond's memory faded as survivors were unwilling and unable to return to the scene of the devastation.



Figure 1. Context map showing the location of present-day Mulgrave Park. Source: Amy Greenberg

After lying vacant during the interwar era and hosting temporary Wartime Housing for military personnel during the Second World War, the decision to use the land for public housing was facilitated by amendments to the National Housing Act, which was passed

in 1944. A new central housing authority, Canada Mortgage and Housing Corporation, had been created to administer the Act. The 1949 amendment to the Act allowed the provincial and federal governments to collaborate on building and managing low-income rental housing, and the 1956 amendment allowed federal assistance for urban renewal of residential lands provided that new housing was built for the displaced residents. The City of Halifax had expressed interest in “slum” clearance of valuable central neighbourhood lands during the Depression and wartime years, but the newly available federal funding and Gordon Stephenson’s 1957 report, *A Redevelopment Study of Halifax*, sealed the deal. Stephenson advocated clearing 8.8 acres of existing “slum” housing in Halifax to make way for Scotia Centre, a Modernist shopping centre. In the end, over 16 acres of housing were cleared. CMHC architects designed a new public housing project, named Mulgrave Park after the well-known open space, in 1959 to house 711 of the 1,600 residents who would be displaced through the Central Area Redevelopment Plan (see Figure 2). The 11-acre site was considered undesirable to developers, making it a good fit for CMHC; as the nation’s new national housing authority, CMHC was anxious to avoid competition with the market (Bealing 2002). By 1960, the project was completed using federal and provincial funds.

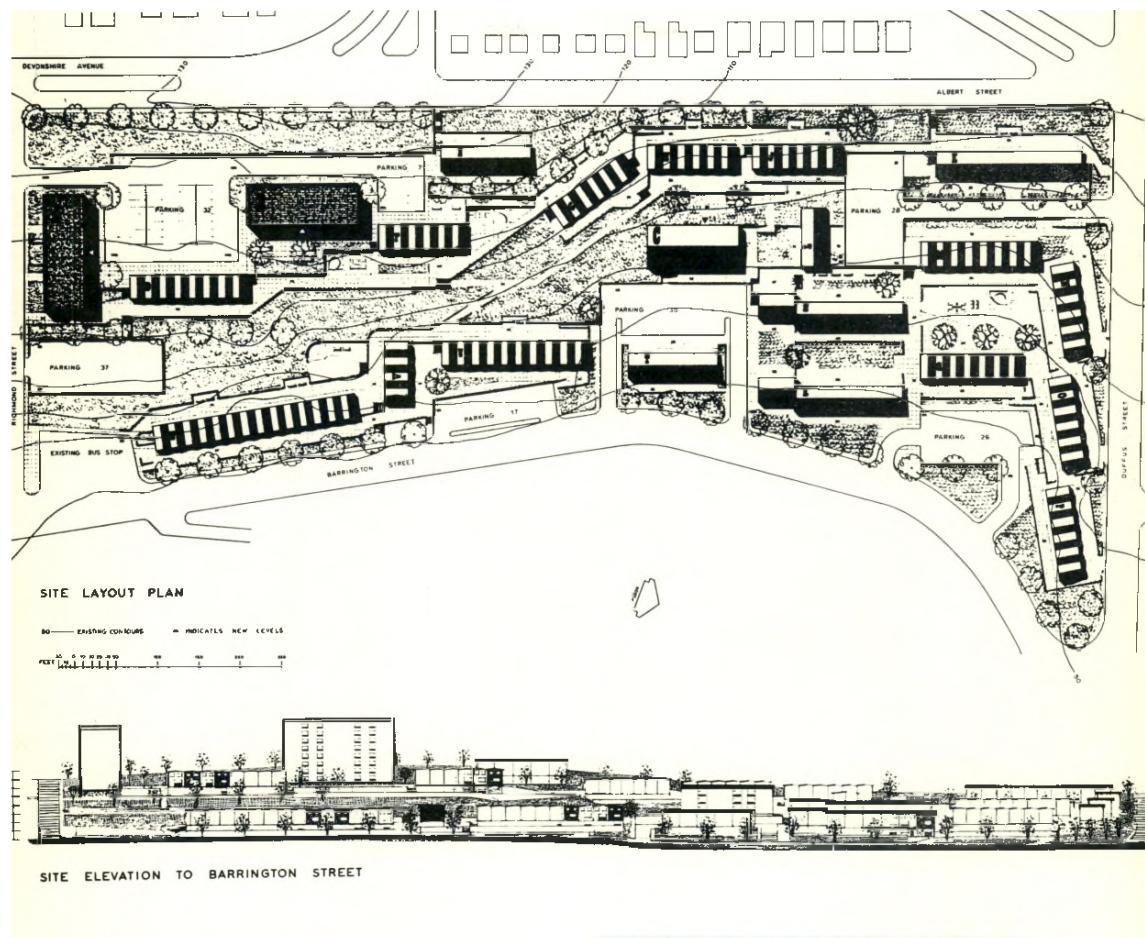


Figure 2. Original site plan and elevation. Source: CMHC (1959)

Revolutionary at the time, the award-winning project was nevertheless designed to encourage families to stay in public housing for as short a time as possible, encouraging them to become consumers in the private housing market (Bealing 2002). In Modernist style, Mulgrave Park had massive concrete retaining walls to deal with the steep slopes down to the waterfront, very little private space for tenants, no community services, and minimal space for social activities or playground spaces. 130 of the 351 units were to be in two eight-storey towers and the rest in three- or four-storey walk-ups (Figure 3), for a density of 35 units per acre, which was considered less desirable than the suburban developments of the time period (Dennis and Fish 1972). Most of the apartments were two or three-bedroom units of a size that CMHC considered “minimal” with functional rather than innovative design features (CMHC 1959, Dennis and Fish 1972).

As in other public housing communities, the maintenance of Mulgrave Park’s buildings, open spaces, roads, and services has been left to an often cash-strapped provincial government, which oversees the Metropolitan Regional Housing Authority. Like other areas of the city (e.g. parts of the waterfront owned by the federal government for military purposes), jurisdictional issues have complicated the maintenance of the community, proposed improvements, and daily issues such as addressing tenants’ concerns.



Figure 3. Typical walk-up units in Mulgrave Park. Source: Author

The current community is tight-knit, with the average household living in Mulgrave Park for ten years and several returning residents (Housing Nova Scotia 2015). Residents are primarily visible minority individuals and households, including those of African Nova Scotian descent. Returning residents include the director of the non-profit Mulgrave Park Caring and Learning Centre and the coordinator of the Phoenix Youth and Community Centre, a local charity with a branch in Mulgrave Park. Several years ago, the housing authority allowed these two organizations to take over several ground-floor housing units for their operations, since there were no other places to base activities like employment programs for youth, cooking classes for children, or tenant association meetings. In the past two years, municipal grants have allowed construction of a new playground, a community garden, and a community-created art project linking the two non-profits.

The Caring and Learning Centre asked the studio class to develop ideas for improving the open and social spaces in the community. Phoenix Youth provided additional guidance to the students, e.g. asking children and youth in the neighbourhood about their preferences and relaying the information to the students.

Restructuring the course

The 13-week studio course includes two classes per week, each three hours in length. The conventional approach to the course is to present students with the site and project, and on the first day, they determine what tasks need to be completed by the end of the term and what deliverables they need to develop for the client. They set out design principles, and begin working as a group towards achieving the goals they have set out for themselves. There are number of challenges in this approach.

As Moon (2004) suggests, the lecturer can act as a mediator, acting as a resource for clarification for the learning and enabling the learner to understand to what standard the learning should be performed. Acting in this role, the instructor is present to answer questions and provide guidance on the type of work expected, and in architecture studios the instructor is a critical component in iterative refinement of the design concept (Senbel 2012). This can be problematic when students do not have sufficient knowledge in key areas such as policy, history, and theory to inform their design work. In an experiential learning approach, client needs, site and budgetary constraints must be prioritized over “ideal” design solutions.

Design studios foster mainly technical skills, as opposed to the process-oriented skills that are both highly valued in planning (Slade et al 2015) and necessary when a real client is in place. Instructors must try to balance the two types of skills. It can be difficult to devise appropriate assessment methods, supervision, and construct projects appropriate for the experiential educational curriculum (Slade et al 2015). To counter the sometimes unstructured studio approach, Kotval (2003) suggests that studio courses much be structured around product deadlines (e.g. progress reports, final

presentations), that clients are aware of and familiar with the course structure and deliverables, and students are evaluated on all aspects of the course experience (e.g. leadership, management, and team-building skills as well as the overall quality of the work). While there is no consensus on the ideal approach to teaching a planning studio, a clear project and client expectations need to be set up and process-oriented skills need to be taught (and evaluated) as well as technical and theoretical knowledge.

As a new professor in the School of Planning, I was familiar with the conventional studio approach, where students work iteratively with the professor, strong conceptual design is the goal and students learn through observation and critique (Senbel 2012). The two structural modifications were meant to impart some knowledge to students in the key areas of housing policy, local history and theory, and to integrate more of the collaborative, cooperative skills that would be needed to work with a client in a vulnerable community.

Using the first modification, the role of the instructor changed from imparting knowledge to facilitating active learning to providing guidance upon request. Lectures and activities for the first part of the course. For example, students learned about the history of the community during a lecture, and for the activity they used hard copy maps to create figure-ground drawings to analyze how the street patterns, buildings, and open spaces had changed over time (see Figure 4). In this way, they developed technical skills that they could use in their assignments and eventually integrate into their solutions for the client, but also cooperation (e.g. sharing a few historic maps). For the first six weeks, there was a gradual transition from these structured activities into unstructured time. Occasional “studio work days” were introduced, when students could simply work in class or in the nearby computer lab on their assignments. By mid-term, the course had transitioned so that every class was a “studio work day”.

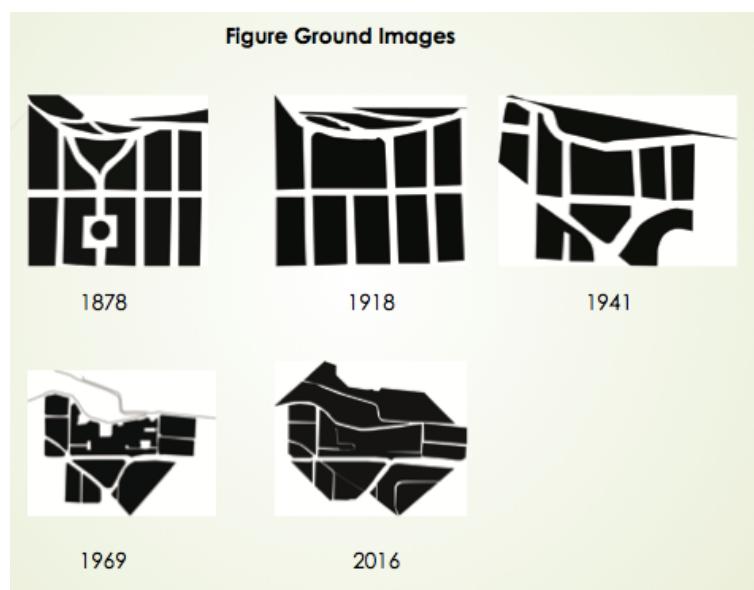


Figure 4. Student figure-ground drawing showing changing street patterns. Source: Yuedi Zhan

Using the second modification, the assessment structure gave students a gradual introduction to group work, collaboration and consensus-building. Students had to complete three assignments: a historical analysis, a design or programming element, and a final report.

They worked as individuals on the historical analysis. On the design of programming element they were encouraged to collaborate with each other if their project would impact another student's work. For example, one student planned to redesign a parking lot on the site to allow more seating and space for social activity near the adjacent buildings. He coordinated his concept with another student who planned to introduce a weekly farmer's market program. The two jointly decided on the physical design elements, implementation, and funding strategies for the redesigned and reprogrammed space. For the final report, students were asked to work as a group to outline and summarize their design/programming solutions for the client. They developed a group contract for the final project, and at the end of the term each student evaluated their team members' work against the objectives outlined in the group contract. This gave the instructor an assessment of process-oriented skills.

Teaching techniques

Table 1 outlines the various techniques used during the course. The exercises reinforced the material discussed in the lectures (Weeks 1-8) and helped students develop the skills needed for their assessments. For example in Week 3, following a lecture on urban renewal, students discussed the physical and social characteristics of 1940s "slums" compared to present-day low-income areas. This helped them understand the historical and social context that led to the creation of Mulgrave Park, and some of the challenges faced by low-income communities located in the central neighbourhoods of Canadian cities (e.g. rapidly rising land costs, municipal revenues from property taxes, the economic case for redevelopment). These concepts could be integrated into their first assignment, a historical analysis of the neighbourhood. So, rather than acting as a mediator (Moon 2004), the instructor imparted knowledge and facilitated learning in the areas considered essential to delivering a high-quality set of solutions to the client (housing policy, history, theory, and urban design).

To build the necessary skill set typical in planning practice, teaching techniques emphasized individual skill development (e.g. drawing, writing) from Weeks 1-4, then fostered group working skills from Weeks 5-10 (e.g. developing a set of design criteria, finding potential funding sources and prioritizing their individual design/programming elements). This supported the assessments: the individual historical analysis (due in Week 4), individual design or programming element (due in Week 9) and group set of design/programming solutions (due in Week 13).

Table 1. Teaching topics and techniques

Week	Topic	Teaching Techniques
1	Holiday; no class	<ul style="list-style-type: none"> • N/A
	Introduction and instructions	<ul style="list-style-type: none"> • Lecture: Issues in affordable housing • Pair and share exercise: design approaches of the landscape tradition, functionalism, and modernism • Class discussion: public housing
2	Site history and characteristics	<ul style="list-style-type: none"> • National Film Board film: Mulgrave Park • Guest discussion (local researcher on Halifax Explosion)
	Site history and characteristics	<ul style="list-style-type: none"> • Lecture: Site history and characteristics • National Film Board film: Remember Africville • Figure ground drawings using historical maps, class presentation
3	Urban renewal and public housing	<ul style="list-style-type: none"> • Lecture: Urban renewal in Canada • Small group exercise: discussion of characteristics of 1940s “slums” compared to present-day low-income areas
	Site visit and client meeting	<ul style="list-style-type: none"> • Client meeting and guided walk around site
4	Affordable housing policies/plans	<ul style="list-style-type: none"> • Lecture: Governmental roles in affordable housing, local housing needs, barriers to affordable housing • Individual exercise: write a one-page statement on a key affordability issue facing Halifax, upload to the National Affordable Housing Strategy consultation website
	Studio work day	<ul style="list-style-type: none"> • Individual work with instructor input
5	Assignment 1 due: Historical Analysis	<ul style="list-style-type: none"> • Individual presentations • Client-led night walk around site
	Redesign of public housing projects, class design approach, design/programming elements	<ul style="list-style-type: none"> • Class exercise: site analysis diagram • Class exercise: develop a set of design criteria and design approach for the site
6	Holiday; no class	<ul style="list-style-type: none"> • N/A
	Redesign of public housing projects	<ul style="list-style-type: none"> • Lecture: public housing during the urban renewal era, redesign of key Canadian projects • Pair and share: characteristics of public housing that led to their redesign, stakeholders and their involvement • Class exercise: revisit and refine the design approach for the site
7	Design of social and open spaces	<ul style="list-style-type: none"> • Lecture: municipal design guidelines, public safety and zoning considerations, sustainability • Film: The Social Life of Small Urban Spaces • Site observation: observe one of three local open spaces and develop a diagram showing how people use the site
	Design of social and open spaces	<ul style="list-style-type: none"> • Site observation: observe an open space in Mulgrave Park and develop a diagram showing how people use the site
8	Funding alternatives	<ul style="list-style-type: none"> • Lecture: municipal budget, community grants program, civic crowdfunding • Group exercise: find potential funding sources for individual design/ programming elements, decide how to prioritize and implement them

	Health and sustainability aspects of design	<ul style="list-style-type: none"> Lecture: design drawings, key theories and practices in sustainability and health Pairs exercise: Design a survey to get feedback from residents on the health and sustainability aspects of open spaces
9	Studio work day	<ul style="list-style-type: none"> Individual work with instructor input
	Assignment 2 due: Individual Design/Programming Element	<ul style="list-style-type: none"> Individual Design/Programming Element presentations
10	Evaluation of design/programming elements against design approach	<ul style="list-style-type: none"> Class exercise: Group contract Develop a timeline for completion of the final report
	Studio work day	<ul style="list-style-type: none"> Group work with instructor input
11	Studio work day	<ul style="list-style-type: none"> Group work with instructor input
	Studio work day	<ul style="list-style-type: none"> Group work with instructor input
12	Presentation to client	<ul style="list-style-type: none"> Group presentation to client on site
	Evaluation of group work, course	<ul style="list-style-type: none"> In-class evaluation of learning objectives Evaluation of group members using group contract
13	Assignment 3 due: Final Report	<ul style="list-style-type: none"> Group presentation to school

Figure 1. Course topics and teaching techniques

Design and programming elements

One of the design challenges the students experienced was the way Mulgrave Park's design, typical of urban renewal projects of the 1960s, eliminated interior streets so that the community ended up becoming quite insular. This has contributed to both social isolation from the city and a tight-knit community where everyone knows each other. Attempts to reduce this isolation can be detrimental to the community, however planners may feel about correcting the wrongs of the past. Another challenge was the physical characteristic of the site as having a steep slope, with a 24-metre (80-foot) rise over its 114-metre (374-foot) width, rendering much of its plentiful open space unusable (see Figure 5).

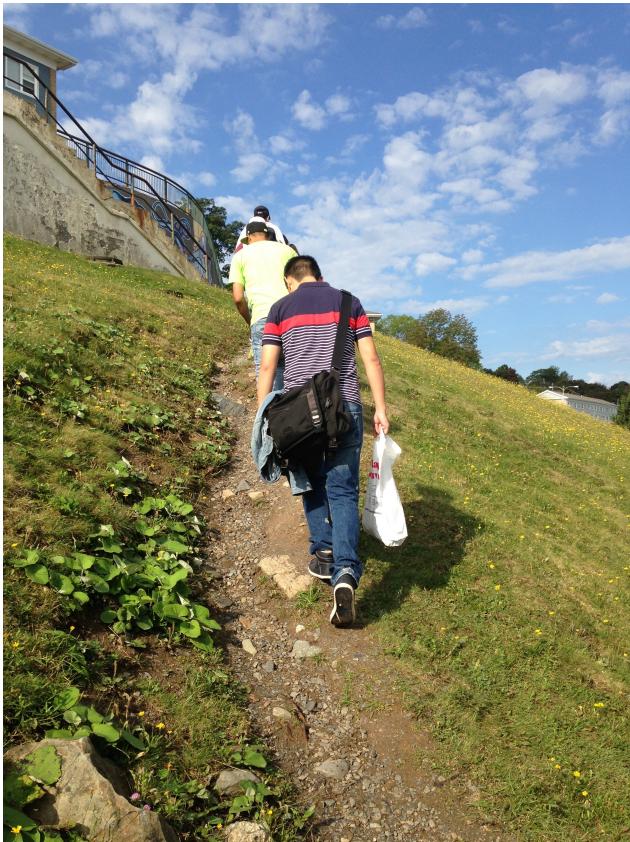


Figure 5. Steep slopes on the site. Source: Author

These two constraints impacted many of the students' projects, e.g. developing better signage and wayfinding was considered necessary because many buildings have street numbers that do not correspond with the residents' knowledge of the layout, and internal streets are incomplete.

The design elements included:

- Redesigning a gravelly, uneven field in the center of the community as a level playing field for children (see Figure 6a and 6b)
- Removing some unnecessary retaining walls and using plants to improve the appearance of others
- Adding a second community garden and greenhouse
- Building a skate/scooter park with lighting for evening use
- Redesigning the existing basketball court with a level playing surface, seating, and accommodations for younger kids
- Redesigning two of the main staircases into the neighbourhood to accommodate informal socializing that happens in these locations
- Better universal access into and around the site through introducing ramps and level pavement where possible

- Introducing a boulevard with planting and seating, which can be used for activities like a farmer's market

MULGRAVE PARK DESIGN ALTERNATIVE: CENTRAL PLAYING FIELD

November 2nd, 2016



Concept Perspective

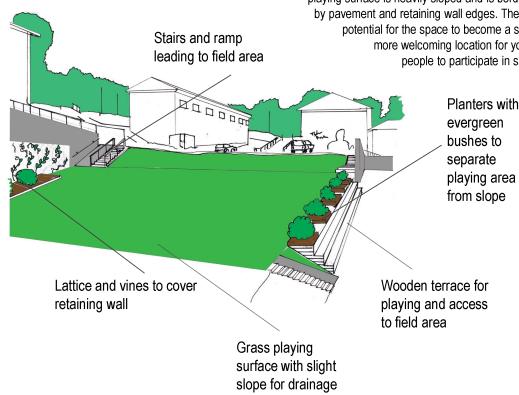


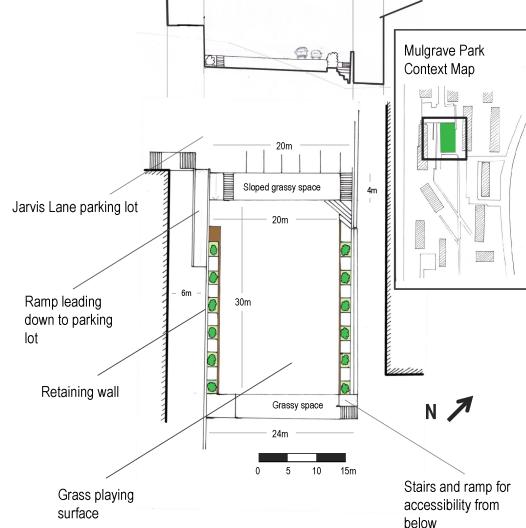
Figure 6a and 6b. Student poster showing an individual design element, a leveled playing field for children. Source: Guillaume Bernier

The programming elements included:

- A program to allow residents to paint window boxes and seed them with annuals
- A program to install seating, garbage bins, bike racks, and an outdoor community events board
- Elements to increase the perception of safety on the site (glow in the dark paint for the existing murals, a Brighter Nights program, and CCTV cameras)
- A farmers' market on the new boulevard, which could also be used for education about nutrition and a winter holiday market
- Improved wayfinding and signage
- Improved lighting, including some solar-powered and LED fixtures, implemented over time
- Developing a community van program to be used to improve access to grocery stores, medical centres, cultural, sports, and entertainment activities nearby

Playing Field Redesign Concept:

Plan & Cross
Section



Budget Estimates & Applicable Grants

- FCM – Green Municipal Fund
- Volunteer Labour/ Donated Materials
- Active Halifax Communities Funding
- Let Them Be Kids

Cost estimate: CAD\$11,500

(Hunsley & Associates Landscaping)

Base expenditures

- Landscaping crew
- Equipment & machinery rental
- Grass seed
- Lumber
- Lattice
- Concrete
- Evergreen plants
- Soil

Students used posters to present their ideas to the client at the end of the term. They answered the client's questions about feasibility, budget, and funding opportunities for their projects. The posters were also left at the Centre so that residents could see them and make comments on them with sticky notes, with the intent to incorporate comments into the final report. Two weeks later, the students submitted the final report to the client introducing the site characteristics, outlining the design rationale and criteria, and summarizing all the design and programming concepts with maps and drawings.

Implementation

Students proposed that the client would be able to slowly implement the small-scale projects, particularly those dealing with children and youth, through grants; as a non-profit organization, the Mulgrave Park Caring and Learning Centre had already been successful in municipal grant competitions. As part of their report, students listed local and national grants for projects supporting health communities and active lifestyles for children and youth. For larger-scale and longer-term projects, the client would continue to advocate for funding from the Province and the housing authority.

Three months after the end of the studio course, as part of an effort to preserve social housing in Canada, the federal and provincial governments announced that they would fund repairs to Mulgrave Park. The \$5 million in funding will pay for badly needed building repairs, the restoration of crumbling retaining walls, and burying services. In consultation with the Caring and Learning Centre, several of the students' projects will be integrated into this work, including redesign and removal of some of the retaining walls. Construction will run from July 2017 until spring 2019.

Outcomes

The results of the redesigned course can be seen in the outcomes of the course learning objectives. These were:

1. Developing an understanding of the importance of natural processes, built form, community aspirations, and the regulatory environment as the basis for good urban design
2. Using techniques of inventory, interpretation, and synthesis to identify constraints and opportunities for development
3. Translating opportunities and limitations for development into principles and criteria for design interventions
4. Developing technical knowledge and skills needed to propose intervention through specific design proposals and policy recommendations that respond to design criteria
5. Learning to evaluate proposals based on design principles and criteria
6. Exercising written, graphic, and oral communication skills
7. Working effectively with project partners

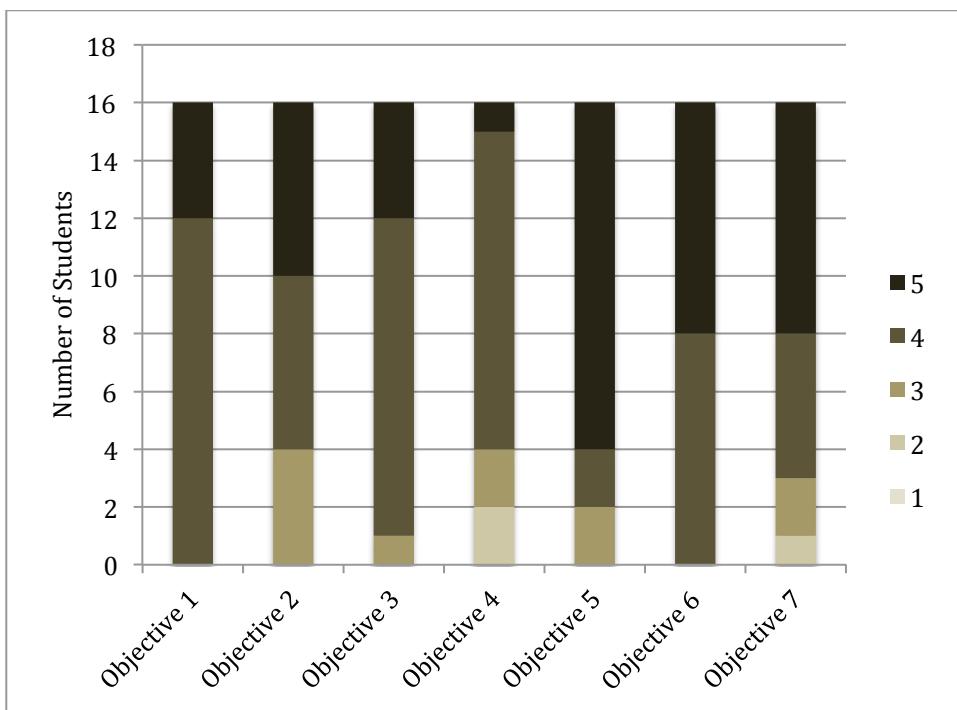


Figure 7. Students' self-evaluation scores on the learning objectives.

Students scores on the Likert scale questions show that they felt they had achieved a high level of proficiency in most of the learning objectives, particularly Objective 5 (learning to evaluate proposals based on design principles and criteria), where 12 of the 16 rated their proficiency as a 5. For Objectives 1 (understanding natural processes, built form, community aspirations, and the regulatory environment) and 6 (exercising written, graphic, and oral communication skills), all 16 students ranked their proficiency at a level 4 or 5. These three objectives indicate a combination of "hard" and "soft" skills. For Objective 7 (working with community partners), 13 of the 16 students rated their proficiency at a level of 4 or 5. In open-ended questions, students identified a number of new skills that they learned (e.g. finding funding sources, project implementation, historical analysis) and especially appreciated learning to work as a group.

Open-ended questions indicated that students appreciated the mixture of lectures, activities, and working time during the course. When asked how the assignments could have been restructured, they indicated that one modification could be starting Assignment 3 at the same time as Assignment 2, which would allow them to refine their individual work while working as a group on the report. When asked which of the lecture topics could have been dropped, many responded that all of the topics seemed necessary to their work. Overall, the course evaluation showed that they gained both technical and process-oriented skills.

Beyond the learning objectives, students were very keen to learn about aspects of housing policy, see examples redevelopment happening in other public housing neighbourhoods like Regent Park, and figure out how their projects could be

implemented through different types of funding. They struggled with the larger concepts such how social justice is manifested through redesign, redevelopment and even simple maintenance of the site. In part, they represent the generational trend towards skimming the surface of a topic without diving in deeply. But another part of their struggle involves the inherent conflict between redevelopment and preservation of social networks and social capital, which they understood in theory rather than in practice.

Discussion

Public housing developments across Canada have been targeted for redevelopment for a complex set of reasons: implemented through federal-provincial urban renewal funding, their management has been a sore spot for the municipalities in which they are located. Many of these projects tore apart existing street networks and concentrated the poor in small areas, resulting in more isolated communities that were inward-looking. Most were designed without critical social infrastructure like community centres, schools, shops, and playgrounds so that young people had nothing to do. And most critically, most were sited in inner city neighbourhoods that, in the 1960s, were considered undesirable. Paradoxically, as in Mulgrave Park, these design “flaws” have sometimes contributed to the development of tight-knit communities with members who look out for each other, improve their neighbourhoods together, and help generate a strong sense of community pride.

Most of these centrally-located public housing communities, like Regent Park in Toronto and Uniacke Square in Halifax, are on land that is now considered to be highly desirable. Regent Park is in the middle of a twenty-year multi-million dollar redevelopment that, like many others of its kind, aims to replace only some of its public housing for very low-income families. The main thrust of this type of redevelopment is better design (e.g. reinstalling the pre-existing street network, introducing mixed uses such as shops and services) fuelled by income mix (integrating market rate housing with some lower-priced units). During this studio course, students became concerned that governments were allowing Mulgrave Park to fall into disrepair with the hopes of redeveloping it into mixed-use housing and displacing the current residents. They had trouble understanding that jurisdictional issues could have contributed to inaction in the maintenance and improvement of the community. It was challenging for them to work under conditions of uncertainty, an experience that certainly prepared them for real-world practice. The federal-provincial funding announcement, although it came several months after the course was over, came as a welcome surprise to the students.

Skills and knowledge needed to teach in an experiential format

Teaching in an experiential learning format requires expertise in the area of work, project management skills, and a range of teaching techniques. In this case, expertise in housing policy, social planning, site analysis, site observation, and urban design was critical because many students had little knowledge in these areas. Finding key resources such as historical maps, municipal reports, and policy documents to be used

in lectures and exercises was much easier with this background knowledge. Strong project management skills are needed in order to teach students how to effectively work as consultants with a client, develop a timeline for completion of a project, and work collaboratively.

Teaching techniques need to build and assess individual and group working skills, technical and process-oriented skills throughout the course. An assessment tool such as a group contract and group evaluation lets the students assess the individual contribution of each group member towards the group goals. A group contract, developed collaboratively, incentivizes students to cooperate and resolve problems in a predetermined way, rather than letting tensions escalate. The group evaluation allows the instructor to correct for students who did less work than others, and to assess process-oriented skills.

Limitations of the studio redesign

A significant limitation to this course redesign exploration involves the self-evaluation of learning objectives, which could have been done at the beginning and end of the course to determine whether students' skills improved. Further exploration is needed to determine whether a more structured approach to the studio leads to improved learning outcomes for students. As the studio is offered only once per year, such longitudinal research will take some time to complete.

Conclusions

This article describes restructuring a fourth-year undergraduate planning studio to achieve experiential learning outcomes. Two main structural modifications were introduced: starting the course by delivering content and applied exercises, gradually transitioning to unstructured time; and starting the course with individual assignments, progressing towards a group assignment. These two structural modifications seemed to result in positive learning outcomes. At this point, this preliminary exploration of course redesign aims to stimulate discussion of experiential learning, studio pedagogy, and teaching techniques. Further iterations of the course would be required to determine whether these modifications result in better learning outcomes.

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