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## Experiencing service learning in design-based partnerships through collective practice

## Aprendizaje-servicio en proyectos comunitarios a través de la práctica colectiva

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#### Abstract

Collaboration and participation are transforming architectural disciplines. Especially in public and collective projects, where more democratic decision-making processes are starting to be implemented. Within this changing context, socially engaged universities can contribute to generate new knowledge around participatory processes and design methods. This can be achieved through design-based university-community partnerships, where useful learning for communities, students and academics can be generated. Following a Participatory Action Research methodology, different partnerships informed this paper. These were structured around landscape architecture university courses with the aim to experience service learning. The article explains the adaptability of the applied methodology and its capacity to serve community needs by seeking design implementation. It shows how partnerships allowed students to learn about new professional roles and design processes through direct experience, while academics developed practice-based research. Finally, it showcases how socially engaged academics can generate knowledge through practice and from the outcomes of that practice.

**Keywords:** participatory design, public space, civic responsibility, university-community partnerships, practice-based research.

Thematic areas: landscape architecture, service learning, participatory processes.

#### Resumen

Los procesos participativos y la colaboración interdisciplinar están transformando las disciplinas arquitectónicas. Especialmente en proyectos públicos y colectivos, donde se están empezando a desarrollar sistemas de decisión más democráticos. En un contexto donde cambian las metodologías de trabajo y los roles tradicionales, las universidades interesadas en desarrollar aprendizaje-servicio pueden contribuir a generar conocimiento si se asocian a grupos comunitarios. Utilizando cursos de paisajismo, y siguiendo una metodología de acción participativa, diferentes colaboraciones informan este artículo. En él se explica la adaptabilidad de la metodología aplicada y cómo se intenta dar respuesta a los objetivos de los grupos comunitarios al persiguir la construcción de los proyectos colectivos. Esta voluntad práctica y participativa permite a los alumnos aprender nuevos roles y métodos de diseño a través de la experiencia directa. A su vez, los académicos pueden desarrollar nuevos procesos pedagógicos y crear proyectos de investigación tanto entre proyectos como de cada proyecto.

**Palabras clave:** diseño participativo, espacio público, responsabilidad cívica, asociación universidad-comunidad, investigación a través de la práctica.

Bloques temáticos: paisajismo, aprendizaje-servicio, urbanismo participativo.

#### Resumen datos académicos

Titulación: Paisajismo

Nivel/curso dentro de la titulación: Tercero (de tres cursos de Grado) y cuarto

curso (primero de dos cursos de Master)

Denominación oficial asignatura, experiencia docente, acción: Landscape

Architecture Design and Landscape Architecture Construction

Departamento/s o área/s de conocimiento: Paisajismo

Número profesorado: Un profesor, más dos tutores (estudiantes de quinto o de

doctorado)

Número estudiantes: De quince a treinta y cinco estudiantes

Número de cursos impartidos: Ocho, uno por año

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## 1. Introduction

Communities partner with universities with the aim to transform their conditions through self-management practices (Compare et al., 2022). But too often universities do not consider the final goal of communities and just focus their attention into pedagogical and process-related aspects (Bryer et al., 2020). Consequently, many times partnerships do not become fully beneficial for communities, as they fail to substantially transform their conditions during and after the partnerships (Baum, 2000). Recent literature shows how universities are facing this issue and establishing a commitment to a mutually beneficial exchange with communities (Tuhkala, 2021).

The research presented in this paper aims to contribute to the generation of knowledge around how design-based partnerships can become more effective. By acknowledging the complexity of transforming the physical environment and the limitations of university-community partnerships, new approaches to design-based partnerships can be explored. This involves prioritising action throughout the entire design process to reach implementation. Targeting design implementation places community needs at the forefront, but also increases the value of partnerships for university, as practice-based education and practice-based research can be experienced.

## 1.1. Socially engaged universities and service learning

Universities can experience civic engagement if they use teaching and research to support communities in need of self-determination (Sengupta et al., 2020). They can help communities transform their physical environment and facilitate service learning to students by actively participating in design-based partnerships (Delpino-Chamy, 2019). These are useful instruments to generate ideas following participatory design methodologies (Irazábal et al., 2015). Ideas can be developed and implemented collaboratively (Folgueiras et al., 2020), creating a sense of empowerment – a sense that when working together, big things can happen. Partnerships are also valuable personal and collective experiences where learning is maximised (Salam et al., 2019) and economic interests either do not exist or tend to be secondary.

## 1.2. New professional roles based on participation

Partnerships expand teaching and learning, enabling the experience of practice-based education through the development of participatory projects (Medved and Ursic, 2021). Students can begin to develop skills relevant to practice (Meroni and Selloni, 2022) and frame professional identities underpinned by civic engagement, whilst helping communities understand and improve their conditions (Higgs et al., 2013). Collaborative and interdisciplinary work, participatory methods, or new professional roles such as facilitator, mediator, educator or builder, can be learned through the experience of a participatory project (Martinez-Almoyna, 2019).

#### 1.3. Participatory Action Research in design-based partnerships

Opening universities to communities through partnerships offers the opportunity for faculty to bring theory to practice through action research (Pine, 2009). Action Research involves cycles of planning and developing an action, reflecting on it and planning a subsequent action to continue the cycle (Cohen et al., 2017). Participatory Action Research is when participation and collaboration are the drivers of that research (Jacobs, 2018), as it happens in design-based university-community partnerships. These are based on the collaboration between partners throughout the entire process to transform community conditions (Trott et al., 2020), embodying a democratic approach to research (Dancis et al., 2023).

#### 1.4. Practice-based research

Practice in architectural disciplines has evolved in the last decades towards more inclusive ways of understanding design (Lamirande, 2020). Interdisciplinary collaboration and the integration of users in decision-making are transforming practice (Luck, 2018), and helping designers address the social, environmental, and economic challenges of contemporary societies. These new ways of practicing are being integrated in tertiary education, where new pedagogical models incorporate stakeholder perspectives and encourage community engagement (Dhadphale and Wicks, 2022). By engaging with communities through teaching, academics can generate theoretically grounded research that benefits both students and communities (Nelson et al., 2021). They can develop practice-based research around participatory processes and design methods (Vear, 2021), but also on performance of implemented designs. Academics have both the time and access to resources for developing research after implementation (Martinez-Almoyna, 2020), something that practitioners rarely have. This allows academics to produce concrete and practical results that can be effectively implemented by practitioners, contributing to reduce the gap between traditional practice and academia (Marabelli and Vaast, 2021).

## 2. Research objectives

- Experience civic engagement and service learning by connecting university to its social context through design-based partnerships.
- Develop a methodology over time through action research that is adaptable to different type of partners, projects, design objectives and university courses.
- Introduce in the curriculum of landscape architecture emerging design processes based on participation and collaboration, where students can learn new professional roles through direct experience.
- Facilitate a different **learning experience** to students opposed to the traditional studio-based courses, engaging with non-technical audiences through design.
- Allow communities to understand and improve their conditions while learning selfmanagement skills, building capacity to develop future projects by themselves.
- Experience roles that bridge academia and practice by linking teaching and research through partnerships. Allowing academics to develop practice-based education and research.

## 3. Materials and methods

The methodology has been conceived to develop projects of landscape architecture through Participatory Action Research. In the case of this research, by *action* we understand a design-based project partially or totally developed with the support of a university course. It also involves the participation of different actors: students, staff and community members. These actors collectively participate in a design process that seeks to transform the physical environment. The methodology has been articulated through different types of university courses considering the desired goal of each project. Two types of partners were targeted: local governments and community groups. The focus of this paper is on partnerships with community groups.

## 3.1. Potential partners for university

The different community groups that partnered with university over time presented similar traits. These were found to be essential to start a design-based partnership:

- **Shared sense of belonging**: groups connected to a specific place, such as small town, neighbourhood, undeveloped urban area, reserve, natural area, school, or community centre.
- A structured group: with some degree of organisation, leadership, and decision-making.
- Interested in self-management: to improve their shared physical environment.
- Lack of knowledge: need of support in terms of skills, knowledge and access to resources.
- Lack of sufficient funds: unable to hire a professional practitioner and follow -a commercial pathway.
- **Access to resources**: groups had members willing to participate, spaces and infrastructure to be utilised, and funds to at least start the project.

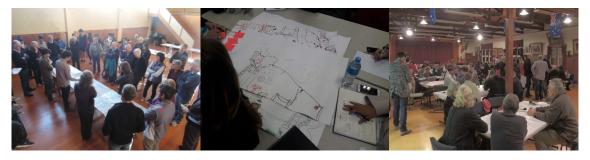


Fig. 1 Design workshops. Source: Martinez-Almoyna, C.

#### 3.2. The agreement

The way that partners got in contact was diverse, but advertisement was not necessary, as university staff had a sufficient social network to connect with potential partners. The initial connection was usually facilitated by a third person. An exploratory conversation between potential partners was proved essential to see if needs and expectations aligned. If following these conversations agreement was possible, projects were collectively planned and defined. To legally reflect the intentions and alignment of each party, partnership agreements were outlined, defining roles, duties and responsibilities of each partner. Theses documents also defined the timeline of the partnerships (including design process and events), funding needs, and the contribution of each partner to the project. Considering the initial economic resources and the overall cost of the projects, extra funding needs were identified and access to additional funds through grants and crowdfunding were planned.

## 3.3. The community group and the type of project

In parallel to the similarities between the different community groups, substantial differences between them were found. Differences conditioned the length and complexity of the projects, the required resources, and the type of university course to be used. These differential aspects were:

- Size and cohesiveness of the group. The larger the group, the more diverse and incohesive it got. This implied longer time frames and more resources to facilitate participation and decision making. On the other hand, larger groups provided a wider range of skills to the projects, which was highly beneficial.
- **Initial agreement on the project to be developed**. The clearer and more feasible the initial design brief provided by the community, the more agile, precise and effective the

- participatory design process was. This reduced time frames and facilitated design implementation.
- Size of the area to design with. Projects ranged from whole municipalities to medium size private parcels. The size of the area influenced the complexity and length of the design process. Larger areas implied more difficulties to develop the designs and achieve meaningful change.
- Type of land ownership and number of properties. Large sites with different private and public properties increased legal and economic complexities. This implied the involvement of the local governments in the projects and the transformation of the partnerships. Instead, self-management and implementation were facilitated if sites were owned by community members or were on public land where community members had legal agency.

## 3.4. Type of projects and courses used

The four factors mentioned above conditioned the type of projects, the participatory process, the ending design phase, the type of courses used, and the feasibility to implement the designs. It was observed that the resulting projects could be grouped under two different categories (see Table 1).

## 3.4.1. Large projects: conceptual exploration through design courses

The community groups of these large project partnerships lived in neighbourhoods or small towns. Tired of waiting and sensing the lack of leadership of their local government, these groups wanted to develop their own projects and facilitate the kind of change that they desired. Considering their urban dimension and the diversity of the community groups, these projects were particularly complex. Design implementation was not part of the partnership objectives, as communities wanted to use the partnership to engage in a conversation, explore ideas and agree about the projects to be developed. Local governments always had some kind of involvement in these partnerships. This went from no support, to providing external support, or to being involved as a third partner. Design courses were used to design large and medium size projects down to the concept design stage. It was found that this first group of projects shared similarities with traditional university studio-based projects in terms of the type of designs and the degree of design development. The essential difference was that the designs were developed through participatory processes.

## 3.4.2. Small projects: from concept to implementation through construction courses

These small project partnerships presented substantial differences compared to the first group. Community groups were smaller and more cohesive. They shared a single property, such as a primary school or a community centre. These groups were politically marginalised and struggled to fund maintenance of their existing properties and the construction of new facilities. Therefore, they were interested on implementing tangible changes in their properties and expand their self-management skills. Before starting the design process, these community groups had a clear idea of what areas they would like to be improved and what kind of projects they wanted to be developed. As part of the partnership agreement, projects were planned to be small interventions designed at low cost with the intention to implement at least one of them. Construction courses were utilised to develop both concept and detailed designs.

Table 1. Types of design-based partnerships

COMMUNITY GROUP	DESIGN BRIEF	PROJECT SIZE	LAND OWNERSHIP	PROJECT LENGTH	ENDING PHASE	UNIVERSITY RESOURCES
Organised. Large group. Diversity of agendas. In need of strategic agreement	Undefined. Focused into understanding WHAT to do and WHERE to intervene.	Large Medium	Multiple private properties and/or public properties. Supervised by municipality	6 months (9-12 months with development of favourite design)	Concept design	Design course. Academic/s. Research assistant (student) for development of favourite design
Organized. Small- medium group. With a clear agreed agenda	Defined. Specific areas and projects. Focused into HOW to intervene.	Small	Single private property and/or public property. With community agency	9 months (12-15 months with construction)	Detailed design (students) and construction management (academic)	Construction course. Academic/s. Research assistant (student) for construction documentation

Source: Martinez-Almoyna, C.

#### 3.5. The participatory design processes

Considering the conditioning factors (see table 1), the design methodology presented differences between the two types of partnerships. These were related to the different design goals, the type of projects and the different courses utilised. Despite these differences, the same principles guided all design processes. These were:

- maximize the interaction between the students and communities through a series of workshops and events.
- facilitate decision making to achieve the desired outputs by the end of the university course.
- Respond to the learning objectives and assessment criteria of the university courses.

The design processes of the two groups of partnerships were:

#### 3.5.1. Large projects: conceptual exploration

No concrete site or program was given to the students, just a physical area and a social context. From site investigation and the interaction with community members, students generated their own design propositions at different scales. They worked in groups at large scales, designing overall frameworks while each group member developed strategic parts at closer scales. This was to enable delivering a wide range of design options to the community. The design process comprised three stages: initial time on site, design development at school and final events on site.

The initial time on site lasted around a week and included cohabitation between students and community members, fieldwork exploration, and different thematic seminars with community experts. Also, a series of design workshops, presentations and social events with the community members were organised to build personal bonds and a shared approach to design. After this initial stage, work was carried out mostly at university and the design process was divided into several stages. At the end of each stage, a design review was organised and feedback from community members was provided. Documentation of the events and the design process were posted on social network platforms to disseminate the evolution of the designs and recieve feedback. At the end of the university courses, the final designs were presented to the communities and exhibitions were organised. Community members voted for their favourite designs and awards were given to the winners.

#### 3.5.2. Small projects: clear visions down to detail

With the aim of seeking implementation, concept and detailed designs were developed during the span of the university course. The factors that facilitated a fast and efficient design development were a:

- smaller area and more manageable range of scales to design
- clear design brief, with predetermined sites and projects
- simplification of the analysis, facilitating a swift start designing
- clear community agenda, which made participatory workshops more efficient

Design development involved group and individual work. Students worked in groups to produce concept designs for the whole property, which included different sites. Meanwhile, each group member developed one of the sites down to detailed design. The design development was divided into three stages: engagement on site, design development at university and final events on site. The first stage lasted around three weeks and included a series of workshops and events with the community members to inform and support the development of the concepts. After this initial stage, design development was carried at university. Each student developed their detailed design while the concept designs done in groups were finished and represented as a design competition. At the end of the course, the concept designs were presented to the communities and exhibited on site for a couple of weeks. Community members voted their favourite design for each of the selected sites and their favourite overall master plan. Awards were given to the winners at a closing celebratory event.



Fig. 2 Final exhibitions. Source: Martinez-Almoyna, C.

#### 3.6. The final stage when the university course is complete

The involvement of the university courses in the partnerships ended when it was initially planned in the agreement. Once courses were over, most of the partnerships continued, and university kept on supporting the communities. Both group of partnerships followed different pathways:

## 3.6.1. Large projects: merging the favourite ideas to potentially become a reality.

The first partnerships finished at the end of the university course. The university delivered a wide range of projects at different scales, combining planning and design. But communities were left with a variety of options that they struggled to deal with and did not have the skills or support to meaningfully change their environment. To redress this and improve community support, subsequent partnerships were extended beyond the course duration. It was found that communities needed more time to process the delivered designs and agree about what projects they would like to be developed. Communities also needed technical support to develop the consensus design at different scales in a cohesive manner. This was done by planning extra funds to hire students as research assistants. Students were supervised by the academics, who

led the project and continued to work voluntarily. To provide a final sufficiently drawn consensus design to the communities was essential considering the complexity of these projects. The aim of communities once partnerships were over was to negotiate with local councils to develop of some projects. Also, to discuss how other projects could be introduced into planning regulations and be gradually implemented.

## 3.6.2. Small projects: developing and implementing interventions.

Communities were given a range of different designs for each of the sites as part of whole property master plans. Through voting, communities decided their favourite designs to be developed on each site, and which sites would be prioritised. Resources were planned and provided to implement at least one of the designs through grants and crowdfunding. This included funds to hire students as research assistants supervised by university staff, who led the remaining design process and continued to work voluntarily. The involvement of the research assistants finished when construction documentation was finalised, while university staff developed further work as construction project managers. The fact that the projects were small outdoor interventions inside a single property meant that major building consent processes were not required. This aspect facilitated implementation and self-management. As community-based projects, sponsorships played an essential role in reducing costs. Construction works that involved machinery or technical tasks were done by paid or volunteer contractors, while the rest of the work was done by community members, university students and university staff, who volunteered and contributed to construction.

### 4. Discussion

## 4.1. Adaptability of the methodology

Research findings demonstrated that adaptability becomes essential in design-based university-community partnerships. As in any participatory project, the different methods employed and how these are applied need to be adaptive. At the same time, design processes need to follow a precise timeline and be responsive to certain academic requirements, as university operates within a defined structure and regular periods of time. If these inherent complexities are embraced, the methodology of design-based university-community partnerships can be adapted to different type of partners with different goals, internal composition, and organisation. Consequently, the methodology can articulate different type of projects, use different type of university courses, and include a strategy towards implementation to fully support communities.

## 4.2. Achieving real changes for communities?

To base design-based partnerships only around experiencing participatory design processes can be useful for university, but not for communities. Findings demonstrated that if design-based partnerships follow the traditional approach and finish at the concept design stage once university courses are over, communities end up remaining where they were before the partnerships: unsupported and unable to develop their projects. To redress this, new approaches to design-based partnerships have been explored, seeking to ensure implementation. Findings from different partnerships showed that the most effective solution was to reduce the complexity and scale of the projects. This meant to facilitate implementation by reducing organisational, technical, legal, political and economic constraints. Consequently, to focus efforts on small projects in single community properties resulted the most effective way to support communities and maximize service learning.

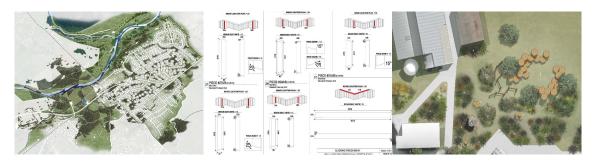


Fig. 3 Different final designs at concept and detailed stages. Source: Martinez-Almoyna, C.

## 4.3. Distinct participatory processes

The interaction between students and community is what makes design-based partnerships specific compared to regular participatory projects lead by practitioners. Findings demonstrated that a shared approach to design can be built if the interaction between students and communities is maximized. Therefore, a balance between pragmatic and speculative approaches can be applied and feasible but ambitious designs can be generated. The participatory design process of every partnership was adapted to university timing and structured into stages. A first stage during the university course where participation was maximized and used to explore ideas and generate concept designs. A second stage conceived to develop community's favourite designs, where participation was reduced to the academics, research assistants and community leaders. And a third stage to build the designs, where voluntarily participation of the students and community members was strongly encouraged.

### 4.4. Practicing in between traditional academia and regular practice

If partnerships target implementation, academics can also become hands-on practitioners. Findings show that to practice through socially engaged partnerships and within an academic framework makes that practice specific compared to regular practice. This is due to:

- **values**: projects are opportunities to experience service learning, civic engagement, self-management and participation.
- **agreement**: the actors are partners. There is no client-designer relationship. The financial interest is just to support teaching activities and improve community conditions.
- **type of projects**: always placed on public or communal spaces and usually conceived as a network of small and interconnected spaces to be transformed at low cost.
- **process**: design and construction are based on participation, volunteering, and self-management. Funding is scarce and always based on grants and crowdfunding.

Socially engaged universities work on a certain types of projects that regular practitioners do not cover due to financial reasons. Instead, socially engaged practice developed by universities presents many affinities with practitioners that work for the non-profit sector. Similarities are related to the way how participatory projects are informed and approached. But at the same time, substantial differences arise due to the fact that communities work with university students and within an academic framework.

## 4.5. Specific type of practice-based research

Design-based university-community partnerships provide opportunities to develop research around specific ways of practicing. By facilitating service learning and practice-based education, academics can gain knowledge through practice and from the outcomes of that practice. Research can be focused on the facilitated processes, as regular academic research. It can also be focused on the performance of the implemented designs in a way that practitioners usually

cannot do due to lack of time or resources. This opens opportunities for academics, as several research projects can be generated from each partnership. These parallel research projects are related to the interests of the academics and the specificities of each project. They can also be used to connect different partnerships and extend these over time, providing further research opportunities.

## 5. Concluding remarks

In order to increase the use and utility of design-based university-community partnerships, it is necessary to interrogate how service learning can be better addressed and what opportunities arise from it. The research presented in this article aims to contribute to this discussion. It has been highlighted how community goals need to be more valued by universities. This involves targeting implementation during the partnerships and to truly provide communities capacity for self-management once partnerships are over. To facilitate community needs, universities can explore the involvement of different types of courses, seeking to maximize the learning opportunities for students by working on real life projects. Meanwhile, academics can develop useful research for other educators around the pedagogical and service opportunities of design-based partnerships. At the same time, by targeting implementation, academics can be involved in design development and generate useful knowledge for practitioners that work in participatory projects. Research around the implemented designs can also be developed if academics continue the collaboration with communities after construction. This provides the opportunity to generate useful knowledge for practitioners interested on the assessment of design performance, contributing to fill the traditional gap between practice and academia.



Fig. 4 Design implementation. Source: Martinez-Almoyna, C.

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