

Community-engaged design studios: learning through “live” projects

Christina Panayi, Nadia Charalambous

Department of Architecture, University of Cyprus, Cyprus.

Abstract

The paper reflects on a pilot community-engaged pedagogical approach, developed through a second-year housing design studio at the Department of Architecture, University of Cyprus. Underpinned by the Urban Living Labs (ULLs) methodology, and in particular, a participatory action research approach (PAR), a co-creation framework was designed, implemented and evaluated and its impact on students and on the design outcomes has been assessed. Designed as a meeting place for students, educators, researchers, and external stakeholders, the design studio aimed to bridge across architectural research, pedagogy and society, fostering knowledge exchange and co-production on one hand, while contributing towards sustainability, diversity and inclusivity regarding urban decision-making processes, on the other. Reflecting on the results, various suggestions for improvements are proposed in terms of the outcome, levels of involvement, tools, process and schedule.

Keywords: *Co-creation; community-engaged pedagogy; design studio; participatory action research (PAR).*

1. Introduction

Understanding the impact of transformations and tensions between global and local forces, agents and stakeholders, on contemporary cities, highlights the need to address urban issues collaboratively, through a multidimensional perspective. The adoption of new roles by citizens and professionals (urban designers and architects) is needed “to make cities and human settlements inclusive, safe, resilient and sustainable” (SDG - Sustainable Development Goal 11). The new generation of urban planners and architects has to deal with multidimensional issues and should be trained to respond and design in such an uncertain, diverse and transforming living environment. Thus, current learning and teaching programs in architecture and urban design curricula have been under consideration. The discussion of whether current academic programs can provide helpful and appropriate knowledge, skills, competencies and experiences for their graduates reveals an opportunity to revisit and review current educational tools, methods, and policies at all levels (Charalambous 2018).

A number of studies argue that architectural pedagogy in general and the design studio in particular, are isolated from the real and dynamic world. As Schon (1988) points out, the design studio is “a virtual world that represents the real, but it is relatively free of its pressures, distractions, and risks”. According to Dutton (1991) the design studio may lead to isolation from the real world, resisting change and reproducing existing preconceptions. The challenge is to bridge academia and society by reformulating the studio framework itself (Tzonis, 2014) to promote effective interaction with the community and to produce graduates who are able to deal with a multidimensional and challenging built environment. Such a pedagogical approach aims to bring together architectural research, pedagogy and society and can be part of a broader strategy for increasing sustainability, diversity and inclusivity regarding urban decision-making processes.

A community-engaged pedagogical approach can help students to gain valuable experiences and knowledge, bringing them in touch with the community they will eventually serve. Through their collaboration with all stakeholders involved in the shaping of the built environment, students will be exposed to the complexities of the real world and to the principles, tools (physical and digital) and challenges of co-creation. By acting in a transdisciplinary context, they will also develop skills regarding identifying, managing and prioritizing complex issues, fostering critical thinking, cooperation, communication, negotiation and leadership skills, as well as evaluation and reflection competencies.

In this framework, this paper reflects on a pilot community-engaged pedagogical approach developed through a second-year housing design studio at the Department of Architecture, University of Cyprus. The framework of the studio is prompted by the theoretical underpinnings of participatory approaches and builds on the methodology of ULLs (Marvin et al., 2018). Through a PAR approach the studio embraces the training of the future

architects to think and design within a co-creation framework, enhancing sustainability, inclusion, and a “sense of belonging”. Research objectives include the design, implementation and evaluation of a co-creation framework within the design studio and the assessment of the impact of such a pedagogical model on students’ motivation, skills and the design outcomes

2. Methodology

The proposed pedagogical model brings together three main groups of participants: students, stakeholders (agents/municipality and residents) and mentors (educators/researchers). PAR methodology is employed, due to its participatory, and reflective framework and the circular process of improvement and revision that gives the opportunity for linkages between research findings and the educational approach. Repetitive cycles of design, action, observation and review, connect theory with practice, encouraging reflection and change (Menny et al., 2018). Every circle consists of four phases: 1. the design of the co-creation framework which includes a preliminary site analysis, identification of stakeholders, development of the participation toolkit and action plan, 2. the implementation of the co-creation framework phase which includes 2.1 the co-identification and co-validation phase (identification of needs, issues, opportunities, threats), 2.2 the co-development and co-selection phase (development of scenarios and solutions, selecting the ideal scenario/scenarios), 2.3 the co-implementation and co-creation phase (detailed design and implementation) and 2.4 the co-assessment and co-evaluation phase (assessing the process, tools and design result), 3. the assessing the impact of the co-creation framework phase when the impact of the process is being assessed both for the students’ motivation (pleasure and interest, opinions about usefulness and importance, attitudes such as confidence, stress, anxiety) and for the design result (inclusivity, accessibility, functionality, efficiency, sustainability, innovation) and 4. the reflection and recommendations phase which includes improvements and recommendations for the design and implementation of the co-creation framework as well as for the assessment of the impact. (Franta et al., 2018; Ravetz et al., 2018; Reid & Sietchiping, 2015) (figure 1).

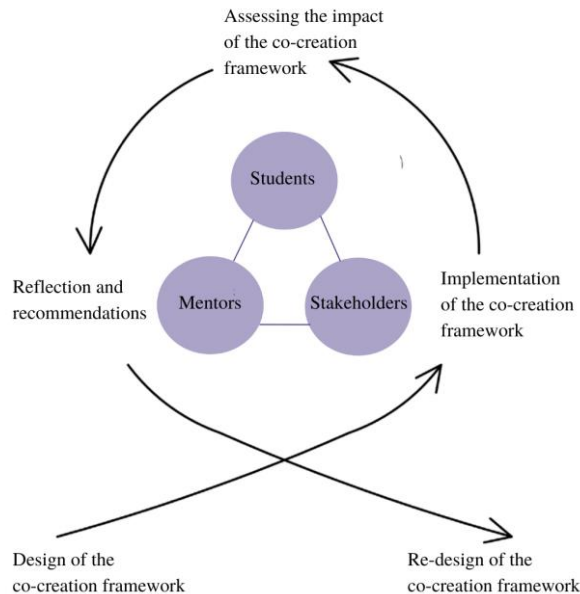


Figure 1. Proposed pedagogical model and PAR methodology.

2.1. Sample, Tools and Limitations

This pilot study was implemented during the spring semester 2021 through a housing design studio, attended by 28, 2nd year architecture students. The theme of the studio explored concepts of "collective living" and "sharing" in a specific site in Nicosia, through the proposed community-engaged approach. A reflection diary, interviews and questionnaires formed the study's data. The reflection diary was used for observing both the students and the design process and outcomes as well as for assessing the co-creation framework and process on both. Questionnaires were used to record the motivation of the students before, during and at the completion of the design studio while interviews and open questionnaires were conducted with the stakeholders at the evaluation phase, to evaluate the tools and the whole process, to record their feelings and spontaneous reactions.

A limitation of the pilot study is the very specific sample (specific students, specific year and university) which may lead to conclusions that cannot at the moment be generalized. In addition, PAR has been questioned for its unclear timeframe and indefinite repeating (Walter, 2009).

3. Outcomes

3.1. Design of the co-creation framework

Step 1: introduction and identification: Students were introduced and informed about the basic definitions of the co-creation process, the objectives and principles.

Step 2: site analysis: The area/neighborhood was analyzed in depth, in order to identify its characteristics and various important aspects (uses, populations, spatial characteristics, demographics, flows, densities, etc.).

Step 3: identification of stakeholders: Students were asked to identify the key stakeholders of the area ensuring a balanced and broad representation (inclusiveness). A group of stakeholders was created with a balance of ages, representation of both genders and representation of different social groups (religion and nationality).

Step 4: development of the co-creation toolkit: The toolkit was developed based on the goals, the desired level of involvement and to achieve transparency and inclusiveness. The selected tools were the questionnaires, the focus groups, the mental maps and the online discussion forum via Facebook.

Step 5: development of a detailed plan: The meetings of the students with the stakeholders were planned in detail and although the combination of digital and physical tools was preferred, due to the pandemic of COVID-19 and the online nature of the design studio, all participation tools were limited to digital format with some of them being adapted accordingly.

3.2. Implementation of the co-creation framework

Step 1: co-identification and co-validation: stakeholders were informed about the process, and received information about the site. A Facebook group was created for informing participants about the process, facilitating discussion. A questionnaire on Google Forms aiming at the identification of their needs, was also shared through Facebook (completed by 22 people, with different genders and ages, figure 2). The 1st focus group then took place through Zoom, with the participation of all the stakeholders, to further discuss any issues/opportunities. At the same time, through an interactive Miro online platform, a map of the area was created in which the residents marked important and collective places in their neighborhood. Through the above methods and tools, the main characteristics, challenges and opportunities of the site under study, as well as both the residents' needs and the municipalities' visions were collaboratively identified and discussed. (such as the lack of green/public spaces and collective activities among others).

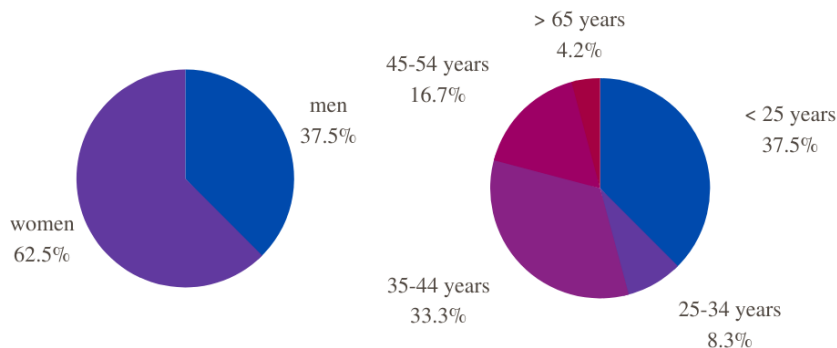


Figure 2. Questionnaires statistics.

Step 2: co-development and co-selection: Based on the needs identified and on the site analysis, students developed preliminary ideas (sketches, concepts, diagrams) and presented them to the stakeholders for feedback and comments, through Microsoft Teams. At the same time, material from the presentations was posted on Facebook to initiate discussion and to ensure transparency and inclusivity. Step 3: co-implementation and co-creation: During this phase, students developed and shared with stakeholders detailed design proposals. None of the stakeholders managed to attend this meeting but all the material was posted on the Facebook group for discussion and feedback.

3.3 Assessing the impact of the co-creation framework

The students' interaction with the stakeholders enabled them to discuss and identify the community's needs as well as to enrich the analysis of the area. During the presentation of the design proposals, and in the 3rd meeting, students referred to the residents' and users' needs and suggestions. They proposed collective spaces with green areas, biological and food markets, spaces for sharing, events and performances. In the following meetings, the students addressed more the issues raised by their teachers concerning the design proposal and less the comments or suggestions of the stakeholders. The process affected to a great extent the initial ideas and concepts, and less the final development of the design solution. Due to Covid restrictions and the lack of on-site meetings, experiential "interpretations" of the area were also limited.

The stakeholders' participation in the whole process was recorded through the observation diary and the interviews, revealing scheduling issues and a gradual decrease of interest and involvement. A lack of face-to-face contact between students, teachers and participants that could encourage further dynamic discussions, spontaneity, a sense of community and trust, was also noted due to the pandemic. The Microsoft Teams tool has been commented by

some participants as inappropriate for an effective collaborative process, as it reduces interactivity. Also, some participants expressed dissatisfaction with the online tools as they did not fully understand their use. Moreover, when answering the online questionnaires, the age of 55-64 was not represented, probably due to the difficulty with online tools. However, it was observed that some participants seemed to have the confidence to express their opinions through online meetings and there was continuous access to information through the Facebook group.

3.4 Reflection and Recommendations

The final design proposals were not significantly affected by the process, probably due to the relatively long periods between the meetings with the stakeholders and the lack of face to face interaction. Reflecting on the above, there are a number of recommendations: discussion forums could be activated more frequently, to enhance interaction; “hands-on” workshops and activities could be organized at different phases, with different levels of participation to enhance an active and personal involvement of the stakeholders in collaboration with the students and mentors. Such workshops as well as more frequent interaction, could facilitate an increased and continuous interest and commitment of the stakeholders. In addition, the possibility of implementing parts of the students’ proposals in collaboration with the municipality and the residents could provide further motivation for co-creation and participation. A detailed, step by step schedule and a handbook with the details of the process from the beginning could also help to overcome any difficulties with the scheduling. Difficulties and opportunities of the online tools due to Covid restrictions, highlighted the need for a combination of digital and non-digital tools to enhance interactivity, inclusiveness, spontaneity and transparency.

4. Conclusions

Live project pedagogy can enrich future graduates' ability to deal with the complexity of the built environment. Students have the opportunity to gain valuable experiences by actively being involved in real-world living conditions and by interacting with different actors and disciplines, as well as with the practice. Bridging academia with both the community and the profession in a transdisciplinary manner, gives students the opportunity to act as mediators, to lead, to negotiate, to work collaboratively and to develop transversal skills and competencies (Charalambous 2018). A community-engaged design studio model enhances active participation of the citizens, empowering and engaging them in the shaping of their living environments through shared common goals and vision, as highlighted by the UN-Habitat (Reid and Sietchiping, 2015). Public sensibility about sustainability is embraced in this framework, facilitating the long-term development of sustainable, resilient and responsive living environments.

References

- Dutton, T., A. (1991). The hidden curriculum and the design studio: Toward a critical studio pedagogy *Voices in architectural education: Cultural politics and pedagogy*, 165-194.
- Franta, L., Dangschat, J. S., & Haufe, N. (2018). D2. 2 Mobility Labs in Practice.
- Marvin, S., Bulkeley, H., Mai, L., McCormick, K., & Palgan, Y. V. (Eds.). (2018). *Urban living labs: Experimenting with city futures*. Routledge.
- Menny, M., Palgan, Y. V., & McCormick, K. (2018). Urban living labs and the role of users in co-creation. *GAIA-Ecological Perspectives for Science and Society*, 27(1), 68-77.N. Charalambous and G. Kyriazis, “*Inter Actions*” in *Inter Actions*. JOVIS Verlag GmbH, 2018.
- Ravetz J., Evans J., & Astbury J. (2018) *Looper: Learning loops in the public realm: D4.2 framework for monitoring and evaluation of the Looper living labs*. Retrieved February 10, 2022, from <https://looperproject.eu/>
- Reid, J. & Sietchiping, R. (2015). National urban policy: *a guiding framework*. Retrieved February 10, 2022, from <https://unhabitat.org/national-urban-policy-a-guiding-framework>
- Schön, D. A. (1988). Toward a marriage of artistry & applied science in the architectural design studio. *Journal of Architectural Education*, 41(4), 4-10.
- Tzonis, A. (2014). A framework for architectural education. *Frontiers of Architectural Research*, 3 (4), 477-479.
- Walter, M. (2009). Participatory Action Research. *Social Research Methods*.