

D6

Situated learning in ULLs



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Deliverable No.	D6
Relevant Work Package:	WP2 Education in Living Labs Framework
Medium:	Publication
Dissemination Level:	Public
Document Version:	FINAL
Date:	14/11/2024
Author:	Bram Dewolfs
Document Description:	The Situated learning in ULLs aims to integrate participatory & interdisciplinary methods to address urban challenges, fostering sustainable development, community engagement, and practical learning.

<i>Version</i>	<i>Issue Date</i>	<i>Reviewer(s)/ Contributor(s):</i>
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EXECUTIVE SUMMARY

Deliverable 6 builds on existing knowledge of situated learning and related educational approaches, integrating these insights with the Urban Living Labs (ULL) methodologies developed throughout the project. It proposes a pedagogical framework that positions ULLs as dynamic educational spaces for situated learning, where students actively engage with real-world urban challenges. This framework is designed to systematize learning outcomes, emphasizing measurable skills, knowledge, values, and soft skills that students should demonstrate as a result of this experiential learning approach. The deliverable outlines the core principles and values of this pedagogical model, clarifying the roles and contributions of both students and tutors/educators. It highlights the importance of collaboration and active participation, ensuring that all stakeholders are meaningfully involved throughout the learning process.

This framework supports the development of critical competencies such as problem-solving, communication, and creativity, essential for navigating the complexities of urban development and innovation. By structuring ULLs as educational environments that facilitate active learning, the deliverable aims to strengthen the educational impact of the project, enhancing both the individual and collective capacity to address urban challenges.

1.INTRODUCTION

Context and Background

Urban Living Labs (ULLs) represent an innovative methodology designed to tackle complex urban challenges through participatory and interdisciplinary methods. These labs function as dynamic platforms where diverse stakeholders come together to collaboratively co-create, test, and refine solutions in real-world settings. The core principle of ULLs is to merge academic research, industrial innovation, governmental support, and community insights to foster sustainable urban development. As Voytenko et al. (2016) note, "*ULLs are places where actors with different backgrounds work together in an open innovation ecosystem.*"

The ULL concept is predicated on the understanding that traditional top-down approaches to urban planning often fail to address the intricate and interlinked problems faced by modern cities. Instead, ULLs advocate for a bottom-up strategy, highlighting the necessity of involving local communities to leverage their unique insights and experiences. This bottom-up approach helps to ensure that the solutions are not only innovative but also contextually relevant and sustainable (Evans & Karvonen, 2014).

The involvement of stakeholders from the quadruple helix model is crucial to the success of ULLs. This model emphasizes the need for collaboration among four key sectors: academia, industry, government, and civil society. Carayannis and Campbell (2009) emphasize that the quadruple helix model "expands the role of civil society in innovation processes, making the model more inclusive and dynamic." Each sector brings distinct perspectives and resources, enriching the problem-solving process and enhancing the viability of proposed solutions.

- **Academia:** Universities and research institutions contribute substantial knowledge and expertise, playing a vital role in conducting rigorous research, analyzing data, and providing theoretical frameworks for practical solutions developed in ULLs (Bulkeley et al., 2019).
- **Industry:** Businesses and industries offer practical expertise, technological innovations, and financial resources, ensuring that solutions are economically viable and scalable (Voytenko et al., 2016).
- **Government:** Local and regional governments provide regulatory support, policy guidance, and public resources, which are essential for implementing and institutionalizing solutions (Evans & Karvonen, 2014).
- **Civil Society:** Community organizations, non-profits, and local residents bring grassroots insights and a deep understanding of the local context, essential for ensuring socially inclusive solutions that meet actual community needs (Bulkeley et al., 2019).

A hallmark of ULLs is the shift away from the traditional teacher-learner dynamic, fostering an experimental setting where learning is a collaborative process. This democratization of knowledge fosters an environment of mutual respect and shared learning, crucial for innovative and sustainable urban development (Voytenko et al., 2016).

The collaborative nature of ULLs not only enhances the quality of developed solutions but also fosters a sense of ownership and empowerment among participants. This is particularly relevant in higher education, where ULLs serve as potent pedagogical tools. They provide students with invaluable opportunities to apply their academic knowledge in real-world settings, develop practical skills, and engage in meaningful community service (Evans & Karvonen, 2014).

Furthermore, ULLs promote a culture of continuous learning and adaptation. The iterative ULL process, characterized by cycles of experimentation, feedback, and refinement, ensures that solutions are constantly improved and adapted to changing circumstances, crucial for addressing the complex and evolving nature of urban challenges (Voytenko et al., 2016).

Purpose of the guide

The primary purpose of this guide is to provide a comprehensive pedagogical framework for implementing Urban Living Labs in higher education. It aims to equip educators, researchers, and practitioners with the knowledge and tools necessary to design and execute effective ULLs that address urban design and social studies challenges. The guide offers detailed steps, theoretical foundations, and practical examples, ensuring that the implementation of ULLs is both academically rigorous and practically impactful (Chron er et al., 2019).

By following this guide, higher education institutions can create enriching learning experiences for their students, foster interdisciplinary collaboration, and contribute to the sustainable development of their urban communities. The guide emphasizes integrating ULLs into the academic curriculum, promoting participatory pedagogy, and leveraging the quadruple helix model to maximize the impact of these initiatives (Carayannis & Campbell, 2009).

2. UNDERSTANDING URBAN LIVING LABS

Definition and Concept

Urban Living Labs are experimental environments designed to foster innovation and address urban challenges through collaborative and participatory approaches. These

labs unite stakeholders from various sectors to co-create, test, and refine solutions in real-world urban settings. ULLs operate on principles of inclusivity, interdisciplinarity, and practical engagement, ensuring that the solutions developed are contextually relevant, innovative, and sustainable (Bulkeley et al., 2019).

The ULL concept centers on creating a living laboratory where urban issues can be explored holistically and integratively. Unlike traditional research and development settings, ULLs emphasize real-time experimentation and feedback. This dynamic approach allows for the continuous improvement and adaptation of solutions, making them more resilient and effective in addressing complex urban problems (Voytenko et al., 2016).

Historical context and Evolution

The origins of the Urban Living Lab concept can be traced to the early 2000s, primarily in Europe. The initial impetus for ULLs emerged from the need for more inclusive and participatory approaches to urban development, as traditional top-down planning methods were increasingly seen as inadequate in addressing the diverse and interconnected challenges faced by cities (Schneidewind & Scheck, 2013).

The evolution of ULLs has been marked by several key developments:

- **Integration of Digital Technologies:** The rise of digital technologies has significantly enhanced ULL capabilities. Smart city technologies, data analytics, and digital platforms enable sophisticated experimentation and monitoring, allowing for precise and impactful interventions (Voytenko et al., 2016).
- **Emphasis on Sustainability:** Over time, ULLs have increasingly focused on sustainability. Environmental considerations, such as energy efficiency, waste reduction, and green infrastructure, have become central to the ULL agenda (Evans & Karvonen, 2014).
- **Interdisciplinary Collaboration:** The evolution of ULLs has seen a growing emphasis on interdisciplinary collaboration. By bringing together experts from various fields, ULLs develop more holistic and integrated solutions to urban challenges (Schneidewind & Scheck, 2013).
- **Shaping Urban Policies:** ULLs play a critical role in influencing urban policy development by bringing together local governments, industry, and community stakeholders in real-time experimentation. This collaboration allows policymakers to make evidence-based decisions and implement solutions that are tested in living environments. As Bulkeley et al. (2019) highlight, ULLs "act as intermediaries between stakeholders, bridging the

gap between research and practical policymaking." These labs provide a flexible space for urban planners and local governments to experiment with policies before scaling them up.

- **Transforming Urban Governance:** ULLs have the potential to transform traditional governance models by promoting participatory governance and co-creation processes. They engage civil society, making urban governance more inclusive and responsive to local needs. As Steen and van Bueren (2017) note, ULLs "reshape governance dynamics by encouraging horizontal collaboration between diverse stakeholders, allowing for more democratic and decentralized decision-making processes." This transformation leads to more agile and adaptable governance structures that can better respond to complex urban challenges.
- **Expansion of Stakeholder Engagement:** The scope of stakeholder engagement in ULLs has expanded to include a broader range of actors. From local residents to international organizations, ULLs now involve diverse participants, enriching the problem-solving process and enhancing the legitimacy of the solutions developed (Bulkeley et al., 2019).

Today, ULLs are recognized as powerful tools for urban innovation and sustainable development. They have been successfully implemented in cities worldwide, addressing issues from transportation and housing to public health and environmental sustainability (Voytenko et al., 2016).

Further insights on the definition, key characteristics and methodologies of Urban Living Labs (ULLs) is available in PS-U-GO's Deliverable 5 Project's ULLs methodologies.

3. KEY THEORETICAL FOUNDATIONS

The pedagogical framework for Urban Living Labs (ULLs) is rooted in several interdisciplinary theories and approaches that enhance both practical and theoretical learning. These key theoretical foundations are essential in shaping how students and communities engage with urban challenges and co-create innovative solutions. The integration of these approaches fosters a holistic educational experience that blends academic knowledge with real-world applications. Below, we explore the key concepts that form the backbone of this framework and demonstrate how they contribute to the pedagogical model of ULLs.

4.1. Placemaking

Placemaking is a community-centered approach to urban design and management, emphasizing the creation of public spaces that reflect the needs, aspirations, and identities of the people who use them. It fosters social, cultural, and environmental sustainability by creating vibrant, inclusive spaces that enhance community well-being. In the context of ULLs, placemaking principles guide the development of urban solutions that prioritize community involvement and long-term sustainability (Project for Public Spaces, 2009). Placemaking is a multidisciplinary approach to planning, designing, and managing public spaces that emphasizes community involvement in creating vibrant, inclusive, and sustainable urban environments. This approach fosters a sense of place and community, enhancing the social, cultural, and environmental value of public spaces. In Urban Living Labs, placemaking principles guide the development of solutions that enhance urban life quality and promote community well-being.

Key Aspects of Placemaking in ULLs:

- **Community Engagement:** Involving local communities in the planning and design process ensures that the solutions developed meet the actual needs and desires of the community. Workshops, participatory design sessions, and surveys are typical methods used to engage the community (Friedmann, 2010).
- **Sustainability:** Emphasizing eco-friendly practices such as green infrastructure, energy-efficient buildings, and sustainable transport systems is integral to placemaking (Agyeman & Evans, 2003).
- **Inclusivity:** Ensuring that public spaces are accessible to all members of the community, especially marginalized and vulnerable groups. This includes designing spaces that accommodate people with disabilities and reflect cultural diversity (Smith & Stirling, 2010).
- **Creativity and Innovation:** Encouraging creative design solutions that reflect the community's unique identity, such as public art installations, adaptive reuse of historic buildings, and flexible-use spaces (Voytenko et al., 2016).
- **Health and Well-being:** Designing public spaces that promote both physical and mental health through green spaces and recreational areas (Schneidewind & Scheck, 2013).

In higher education, placemaking projects can be integrated into coursework, allowing students to engage with local communities and co-create solutions for public spaces, thus fostering a sense of civic responsibility and practical design experience.

Community-based Urban Planning_Jane Jacobs' theories

Jane Jacobs was a pioneering urban activist whose ideas about community-based urban planning have had a lasting impact on how cities are designed. Her emphasis on mixed-use development, walkable neighborhoods, and active public spaces remains central to modern urban planning and aligns closely with the goals of ULLs (Jacobs, 1961).

Key Principles of Jane Jacobs' Theories:

- **Mixed-Use Development:** Encouraging diverse land uses within urban neighborhoods to create vibrant, economically resilient communities (Jacobs, 1961).
- **Walkable Neighborhoods:** Designing urban areas to prioritize pedestrians and reduce car dependency by creating safe, accessible pathways and transit options (Jacobs, 1961).
- **Active Public Spaces:** Promoting the design of public spaces such as parks, plazas, and community centers that encourage social interaction and community engagement (Schneidewind & Scheck, 2013).
- **Community-Based Planning:** Involving local communities in decision-making processes ensures that solutions are tailored to the specific needs and preferences of the residents (Healey, 1997).
- **Urban Diversity:** Promoting diversity in housing, businesses, and cultural spaces, which contributes to the vibrancy and resilience of neighborhoods (Jacobs, 1961).

Students can analyze case studies of successful mixed-use developments and propose similar models for local communities, engaging in fieldwork and stakeholder interviews.

Sustainability Science

Sustainability science integrates ecological, social, and economic perspectives to address complex sustainability challenges. It emphasizes systems thinking, interdisciplinary research, and the co-creation of knowledge with stakeholders. In ULLs, sustainability science provides a framework for developing holistic and resilient solutions to urban challenges.

Key Principles of Sustainability Science:

- **Systems Thinking:** Understanding the interconnectedness of ecological, social, and economic systems. This involves analyzing how different components of urban systems interact and influence each other.
- **Interdisciplinary Research:** Integrating knowledge from various disciplines to address complex sustainability challenges. This involves collaboration between scientists, policymakers, and practitioners.
- **Co-Creation of Knowledge:** Engaging stakeholders in the research process to ensure that solutions are relevant and actionable. This involves participatory research methods, such as co-design workshops and community-based research.
- **Resilience:** Developing solutions that enhance the resilience of urban systems to shocks and stresses. This involves designing systems that can adapt to changing conditions and recover from disturbances.

Example in Higher Education: A sustainability science course might involve students working on a ULL project to develop a climate resilience plan for their campus or local community. This can include conducting vulnerability assessments, identifying adaptation strategies, and engaging with stakeholders.

Psychogeography

Psychogeography explores how urban environments impact the emotions and behaviors of individuals, offering new ways of understanding the city through personal experience. It promotes a deeper understanding of the human experience in urban spaces and can inform more empathetic and user-centered urban design solutions (Coverley, 2010).

Key Aspects of Psychogeography:

- **Exploration:** Encouraging exploration of urban spaces without predefined routes to discover hidden elements of the city (Coverley, 2010).
- **Emotional and Psychological Impact:** Investigating how different spaces evoke emotions such as safety, excitement, or nostalgia (Schneidewind & Scheck, 2013).
- **Human Experience:** Promoting an understanding of how people perceive and interact with urban spaces (Friedmann, 2010).
- **Hidden Layers:** Uncovering historical or cultural narratives embedded in the urban landscape (Coverley, 2010).

- Creative Approaches: Using artistic methods such as photography, storytelling, and mapping to reveal the hidden dimensions of urban life (Coverley, 2010).

Urban studies courses might include psychogeography projects where students explore different neighborhoods and document their experiences through creative outputs such as journals, maps, and photographs.

Urban Pedagogy

Urban pedagogy focuses on the educational processes that take place within the context of cities and urban life. It draws from disciplines like urban planning, architecture, sociology, and geography, offering a holistic understanding of the dynamics that shape cities. This approach emphasizes experiential learning, interdisciplinary collaboration, and active community engagement, all of which are core to ULLs (Healey, 1997).

Core Components of Urban Pedagogy:

- **Experiential Learning:** Engaging students in hands-on projects that address real-world urban challenges allows them to apply theoretical knowledge to practical problems (Anderson, 2013).
- **Interdisciplinary Collaboration:** Encouraging collaboration between students from different academic disciplines fosters a more comprehensive understanding of urban issues. For example, urban planning students might work with environmental science students to develop sustainable solutions (Leminen et al., 2012).
- **Community Engagement:** Students are encouraged to work directly with local communities, co-developing socially inclusive and culturally relevant solutions to urban challenges (Voytenko et al., 2016).
- **Reflective Practice:** Reflection on their learning and practical experiences helps students assess their successes and areas for improvement, which is crucial in an adaptive learning process (McPhee, 2019).
- **Critical Thinking:** Developing students' ability to analyze urban issues critically, assess the impacts of policies, and propose innovative solutions (Franz et al., 2015).

Urban studies courses might include service-learning components where students work on community-based projects, such as revitalizing a local park or improving public transportation systems.

Situated Learning (Jean Lave)

Situated learning, as introduced by Jean Lave and Etienne Wenger, is based on the idea that learning occurs within social and cultural contexts and is most effective when it happens in real-world settings, rather than through abstract instruction. In ULLs, students learn by actively participating in urban problem-solving within communities, making learning a collaborative and contextualized experience (Lave & Wenger, 1991).

Key Principles of Situated Learning in ULLs:

- **Learning by Doing:** Students engage in authentic activities within real urban settings, gaining practical experience by directly addressing urban issues.
- **Community of Practice:** Students, educators, and community members form a "community of practice" in which knowledge is co-created and shared through active participation (Wenger, 1998).
- **Contextual Learning:** Learning is embedded in the specific social, cultural, and environmental contexts of the urban spaces being studied, allowing students to understand how theory applies in practice (Lave & Wenger, 1991).

Through situated learning, students work alongside community members and professionals in urban projects, gaining hands-on experience in real-world challenges such as sustainability and urban development.



Informal Education



Formal Education



Non-Formal Education

Free path	Plans to follow	Needs of participants centered
Non-Measurable	Grades/Evaluation	Self-evaluation
No structure	Structured	Flexible structure
Self-directed	One direction (teacher to student)	Participative
Free	With costs (most of the times)	Depends on the cases
Free flow	Time conditioned	Adaptative
Self-motivated	Mandatory	Active participation
Non-recognizable	Certified/Diploma	Participation certified

Figure 1: Non-formal learning Table, Urban Foxes

Youth Work Methodologies

Youth work methodologies focus on engaging young people in educational and developmental activities that promote their personal, social, and civic growth. These methodologies emphasize empowerment, participation, and experiential learning, aligning closely with the principles of ULLs.

Key Principles of Youth Work Methodologies:

- **Empowerment:** Encouraging young people to take an active role in their communities and develop their leadership skills. This involves providing opportunities for youth to lead projects, make decisions, and take on responsibilities.
- **Participation:** Ensuring that young people have a voice in the planning and decision-making process. This involves creating inclusive and participatory spaces where youth can share their ideas and opinions.
- **Experiential Learning:** Engaging young people in hands-on activities that promote learning through experience. This can include service-learning projects, outdoor education, and community-based research.
- **Social Inclusion:** Promoting the inclusion of all young people, regardless of their background or circumstances. This involves addressing barriers to participation and creating supportive environments.
- **Critical Reflection:** Encouraging young people to reflect on their experiences and learn from them. This involves facilitating reflective discussions, journaling, and mentoring.

Universities might partner with local youth organizations to implement ULL projects that engage young people in community development initiatives. This can include youth-led urban planning workshops, community clean-up events, and advocacy campaigns.

WHAT IS YOUTH WORK FOR?

Enables young people to do the things they want to do **TOGETHER** & **INDIVIDUALLY**

Provides opportunities to **EMANCIPATE** & gain autonomy

Healthy and safe options for enjoying **LEISURE**



Empowers **CHANGE** in their communities and society

Helps to **ENGAGE** with power & policy

Provides relevant non-formal **EDUCATION** opportunities to improve their **COMPETENCES**

Figure 2: Benefits of Youth Work, Urban Foxes

4. THE QUADRUPLE HELIX MODEL

Definition and Importance

The quadruple helix model is an innovation framework that fosters collaboration among four key sectors: academia, industry, government, and civil society. It plays a critical role in promoting sustainable development by leveraging the distinct strengths, knowledge, and resources of each sector. In Urban Living Labs (ULLs), the quadruple helix model ensures that solutions are comprehensive, contextually relevant, and tailored to the needs of urban communities (Carayannis & Campbell, 2009).

However, as sustainability and future-oriented policies take on greater significance, a fifth helix—focusing on future generations and sustainability—has been increasingly integrated into this model. This extension recognizes the need to include the perspective of future generations in the decision-making process, ensuring that solutions are not only beneficial for current stakeholders but also sustainable for the long-term health of the planet and its people (Carayannis et al., 2012).

Key components of the quadruple helix model include:

- **Academia:** Universities and research institutions contribute substantial knowledge and expertise. They play a vital role in conducting rigorous research, analyzing data, and providing the theoretical frameworks for the practical solutions developed in ULLs. Academic institutions ensure that projects have a solid foundation in research and theory, which helps create innovative yet evidence-based outcomes (Bulkeley et al., 2019).
- **Industry:** Businesses and industries offer practical expertise, technological innovations, and financial resources, ensuring that solutions are both economically viable and scalable. Their involvement helps ULLs develop cutting-edge, market-ready innovations that can be implemented effectively within urban environments (Voytenko et al., 2016).
- **Government:** Local and regional governments provide essential regulatory support, policy guidance, and public resources. They ensure that proposed solutions align with existing regulations and urban planning strategies, and they help institutionalize these solutions for long-term success (Evans & Karvonen, 2014).
- **Civil Society:** Community organizations, non-profits, and local residents contribute grassroots insights and a deep understanding of the local context. Their involvement ensures that ULL solutions are socially

inclusive and respond directly to community needs. Civil society organizations help ground the project in local realities and ensure that all voices, especially marginalized groups, are heard in the process (Healey, 1997).

- Future Generations (Fifth Helix): Recognizing the importance of sustainability, the fifth helix integrates the needs of future generations into ULLs. This forward-looking perspective ensures that urban solutions are not only responsive to present-day issues but are also sustainable in the long term. The fifth helix embodies the principles of intergenerational equity, emphasizing that today's actions should not compromise the ability of future generations to meet their own needs (Carayannis & Campbell, 2012).



Figure 3: Quadruple Helix, Urban Foxes.

Creating Equal and Fun Workshops for Urban Living Labs

Bringing together stakeholders from academia, industry, government, and civil society can be a rewarding but challenging task. Below you can find some tips on how to implement participatory activities where everyone has an equal voice, ensuring a balanced, engaging, and fun experience for all participants:

1. Setting the Stage for Equality

a. Pre-Workshop Preparation:

- **Diverse Invitations:** Ensure a balanced mix of participants from all four stakeholder groups. Make sure each group feels equally important and valued from the outset.
- **Clear Objectives:** Communicate the workshop goals clearly. Make it known that all voices are crucial for the success of the project.

2. Creating a Welcoming Environment:

- **Icebreakers and Team Building Activities:** Start with fun and inclusive icebreakers that encourage participants to get to know each other beyond their professional roles. Activities like "Two Truths and a Lie" or a quick group scavenger hunt can set a positive tone.
- **Neutral Facilitators:** Have neutral facilitators who are skilled in managing group dynamics and ensuring that no single group dominates the conversation.

3. Workshop Methodology

a. Structured Discussions

- **Round-Robin Format:** Use a round-robin format during discussions. This ensures that each participant has a turn to speak without interruption, promoting equal participation.
- **Timekeeping:** Assign a timekeeper to monitor contributions, ensuring no one exceeds their allotted time, thus maintaining balance.

b. Collaborative Activities:

- **Mixed Group Work:** Divide participants into small, mixed groups that include representatives from each stakeholder category. Assign tasks that require input from everyone, like brainstorming sessions or problem-solving challenges.
- **Rotating Roles:** Rotate roles within the groups (e.g., note-taker, presenter) to give everyone a chance to lead and contribute equally.

c. Interactive Tools:

- **Post-It Note Voting:** Use Post-It notes for brainstorming ideas where participants write down their thoughts anonymously. This technique can help quieter participants share their ideas without the pressure of speaking up.
- **Digital Collaboration Platforms:** Utilize tools like Miro or Trello for virtual brainstorming and project management. These platforms can help ensure that all voices are documented and considered.

d. Ensuring Fun and Engagement

- **Engaging Activities**
- **Gamification:** Incorporate elements of gamification such as challenges, rewards, and interactive games related to urban design. This keeps the atmosphere lively and encourages participation.
- **Creative Workshops:** Host creative sessions like "Urban Design Charrettes" where groups create quick design sketches of proposed solutions. These can be fun and visually engaging.

e. Social Elements:

- **Networking Breaks:** Include breaks specifically for networking with refreshments. These informal settings can foster relationships and break down hierarchical barriers.
- **Cultural Activities:** Integrate local cultural activities or short field trips related to urban issues. This not only makes the workshops more enjoyable but also contextualizes the discussions.

4. Managing Dynamics and Ensuring Equality

a. Active Facilitation:

- **Intervention Techniques:** Facilitators should gently intervene if discussions become dominated by a few voices. Techniques like summarizing points and redirecting questions to quieter members can help.
- **Empathy and Listening:** Encourage active listening and empathy. Exercises that highlight the importance of understanding different perspectives can reinforce this.

b. Feedback Loops:

- **Regular Check-Ins:** Conduct regular check-ins during the workshop to gather feedback on how participants feel about the process. Adjust methods in real-time to address any imbalances.

- Post-Workshop Surveys: Use anonymous surveys post-workshop to understand what worked well and what needs improvement. This can help fine-tune future sessions.

5. Post-Workshop Follow-Up

- a. Action Plans
- b. Clear Outcomes: Summarize the workshop outcomes clearly and distribute them to all participants. Ensure that the next steps are agreed upon and that responsibilities are equally distributed.
- c. Continuous Engagement: Keep the momentum going with regular follow-up meetings or online forums where all stakeholders can continue to contribute and stay informed.
- d. Recognition: Acknowledge Contributions by recognizing and celebrating the contributions of all participants equally. Public acknowledgment in newsletters or social media can reinforce the value of every stakeholder's input.

By structuring workshops with these methodologies, you ensure that policy makers and industry leaders do not overshadow civil society and academic participants. This approach fosters a balanced, inclusive, and engaging environment where every voice matters, making the collaborative effort not just effective, but also enjoyable.

5. PEDAGOGICAL FRAMEWORK FOR PS-U-GO URBAN LIVING LABS

Key Pedagogical Approaches

The pedagogical framework for Urban Living Labs is grounded in several key approaches that foster interdisciplinary learning, practical engagement, and continuous improvement:

Experiential Learning: ULLs emphasize hands-on learning experiences. Students engage in real-world projects that address actual urban challenges, applying theoretical knowledge in practical contexts, fostering deeper understanding and retention of knowledge.

Interdisciplinary Collaboration: ULLs bring together students from different academic disciplines, promoting cross-disciplinary collaboration and learning. Exposure to diverse perspectives and approaches enhances problem-solving abilities.

- 1) Stakeholder Participation: ULLs involve a wide range of stakeholders in the learning process. Students collaborate with community members, government officials, industry experts, and academic researchers, enriching the learning experience and ensuring solutions are contextually relevant and inclusive.
- 2) Reflective Practice: Reflection is key to the ULL process. Students reflect on experiences, analyze successes and challenges, and identify areas for improvement, promoting continuous learning and adaptation essential for addressing complex urban issues.
- 3) Digital Skills Development: ULLs integrate digital tools and technologies. Students develop digital proficiency using data analytics, GIS, simulation software, and digital communication platforms to address urban challenges.
- 4) Sustainability, Creativity and Entrepreneurship: ULLs encourage thinking about sustainability and entrepreneurship in urban contexts. Students develop environmentally sustainable and economically viable solutions, fostering a mindset of social and sustainable entrepreneurship.
- 5) Situated Learning: ULLs are grounded in the concept of situated learning, where learning occurs in real-world contexts through social interaction and collaboration. Students engage in practice-based learning, learning by doing within a community of practice. This approach fosters deeper learning as students apply theoretical knowledge to practical challenges, facilitating knowledge acquisition through contextual experiences (Lave & Wenger, 1991). The integration of situated learning enables students to acquire critical skills in urban problem-solving by immersing themselves in live urban environments, enhancing their adaptability to real-world complexities.

There will even be an integration with New European Bauhaus and Erasmus+: ULLs align with the missions of the New European Bauhaus and Erasmus+ programs by promoting aesthetics, sustainability, inclusiveness, mobility, lifelong learning, and intercultural understanding, enhancing their impact and reach.

By incorporating these pedagogical approaches, ULLs provide a rich learning environment that prepares students to tackle real-world urban challenges with creativity, collaboration, and critical thinking.

Learning objectives and outcomes

PS-U-GO Urban Living Labs aim to equip students with a comprehensive set of skills and knowledge essential for addressing urban challenges in a holistic and integrated manner. For urban design and social studies students, primary objectives include:

1. **Interdisciplinary and Transdisciplinary Knowledge:** Students gain a broad understanding of urban design, social dynamics, sustainability, and civic engagement, integrating insights from various disciplines to develop comprehensive solutions.
2. **Practical Problem-Solving Skills:** ULLs provide opportunities to apply academic knowledge in real-world settings, developing practical skills in identifying, analyzing, and addressing urban issues innovatively and contextually.
3. **Stakeholder Engagement:** Students learn to engage and collaborate with diverse stakeholders, including community members, government officials, industry experts, and academic researchers, developing facilitation, negotiation, and conflict resolution skills essential for effective engagement.
4. **Critical Thinking and Analysis:** ULLs encourage students to critically analyze urban issues using data-driven and evidence-based approaches, evaluating intervention effectiveness, identifying risks and opportunities, and making informed decisions.
5. **Communication and Presentation:** Effective communication is crucial in ULLs. Students learn to articulate complex ideas clearly and persuasively, using various media and formats, and develop public speaking, writing, and visual communication skills essential for engaging diverse audiences.
6. **Urban Pedagogy:** Students gain insights into urban pedagogy principles and practices, learning about education's role in promoting sustainable and inclusive urbanization.
7. **Participatory Facilitation Skills:** ULLs emphasize participatory approaches. Students learn facilitation skills, enabling them to guide and manage participatory processes effectively, developing competencies in organizing and leading workshops, focus groups, and community meetings.

In addition to these specific objectives, ULLs align with broader educational goals set by the European Union. According to the latest EU learning objectives for higher education, students should develop skills that contribute to the Sustainable Development Goals (SDGs), social and sustainable entrepreneurship, and digital proficiency. PSUGO will offer a platform to integrate these objectives by promoting sustainable urban practices, fostering entrepreneurial thinking in urban contexts, and leveraging digital tools and technologies in urban problem-solving.

The New European Bauhaus initiative further supports this by aiming to bring the Green Deal to life in an attractive, innovative, and human-centered way. It emphasizes aesthetics, sustainability, and inclusiveness, inspiring students to think creatively about how their urban designs can contribute to a better quality of life.

Typically the Erasmus+ program also aligns with these objectives by promoting mobility, lifelong learning, and intercultural understanding. It supports the integration of ULLs into higher education by providing opportunities for students and staff to engage in international collaborations, enhancing their global perspective and network.

By achieving these objectives, students will be well-prepared to contribute to the sustainable development of their urban communities, both academically and professionally.

Assessment and Evaluation of the Learning Objectives and Outcomes

The assessment and evaluation of learning in Urban Living Labs should go beyond traditional academic frameworks to embrace innovative, participatory, and experiential methods. By integrating peer-to-peer assessment, reflective diaries, design thinking, hackathons, gamified learning, and impact-based metrics, ULLs offer students a holistic learning experience that not only equips them with practical skills but also prepares them to tackle real-world urban challenges effectively. These methods not only evaluate knowledge and skills but also foster creativity, collaboration, and personal growth.

These methods ensure that students are evaluated on their ability to apply interdisciplinary and transdisciplinary knowledge in real-world contexts, engage stakeholders, and contribute to sustainable urban development. By using digital tools and non-formal assessments, ULLs foster creativity, collaboration, and lifelong learning

1. Peer-to-Peer Learning and Assessment

Peer-to-peer assessment involves students evaluating each other's work and contributions, which fosters a deeper understanding of the subject matter and enhances collaboration. This method is particularly effective in ULLs because it encourages students to engage critically with each other's ideas and approaches, simulating real-world collaborative processes (McPhee, 2019).

Benefits: Encourages critical thinking, mutual feedback, and the sharing of different perspectives.

Tools: Online platforms such as Peergrade or Google Forms can be used to facilitate anonymous peer reviews, ensuring constructive feedback from all participants.

2. Reflective Diaries and Digital Portfolios

Reflective diaries and digital portfolios are modern tools for assessing how students internalize and apply what they learn in the ULL. These assessments emphasize self-

reflection, creativity, and the ongoing learning process rather than merely the final product (Schuurman & De Marez, 2012).

Reflective Diaries: Students are encouraged to document their learning journey, highlighting their experiences, challenges, and how their understanding evolved throughout the process. This allows for personal insights into how students engage with urban challenges.

Digital Portfolios: Platforms like Padlet or Notion can be used by students to compile a portfolio of their work, including designs, prototypes, stakeholder engagement activities, and reflections on their learning.

3. Action-Based Learning Evaluation

In ULLs, the learning process is highly action-oriented, where students are expected to apply their theoretical knowledge in practical settings. Action-based learning evaluation focuses on the real-world impact of students' work and how well they can translate their learning into tangible outcomes (Leminen et al., 2012).

Assessment Criteria: Students can be evaluated based on their ability to co-create solutions with community stakeholders, implement pilot projects, and engage in participatory urban planning processes.

Experimental Projects: The evaluation can include students' contributions to ongoing urban initiatives or even the success of pop-up interventions they design to solve urban problems. For example, temporary urban gardens, public art installations, or community workshops designed by students can be key outputs for assessment.

4. Design Thinking and Prototyping Assessment

Design thinking is a critical approach in ULLs, emphasizing human-centered innovation. Students should be assessed on their ability to apply the principles of design thinking—empathy, ideation, prototyping, and testing—within urban environments (Brown, 2009).

Prototyping: Evaluations can focus on the students' ability to create and test prototypes of urban interventions, such as new public spaces or sustainable infrastructure solutions. The assessment can be iterative, based on feedback cycles from real users and stakeholders.

Digital Tools: Tools like Miro or Figma allow students to collaboratively design and share their prototypes in virtual settings, enhancing their digital literacy while offering insights into their creative processes.

5. Collaborative Storytelling and Narratives

Collaborative storytelling is an emerging approach to evaluating student engagement and creativity. In ULLs, students could be tasked with creating narratives or multimedia

presentations that document the challenges and outcomes of their urban interventions (Franz et al., 2015).

Assessment Through Storytelling: Students can develop a visual or written narrative that tells the story of the community they are engaging with, the urban problems they are addressing, and the impact of their interventions. This can be presented through video documentaries, podcasts, or even interactive maps.

Platforms: Tools like StoryMapJS or Adobe Spark can be used to help students create compelling narratives, offering a creative and innovative way to assess their understanding and impact.

6. Hackathons and Challenge-Based Learning

Hackathons or urban innovation challenges are modern, highly interactive methods of assessment that foster creativity and quick thinking. These events provide a platform for students to work in teams to develop innovative solutions to specific urban challenges within a limited time frame (Ballon et al., 2005).

Evaluation Criteria: Students are assessed on their ability to collaborate under pressure, generate creative solutions, and present actionable ideas to a panel of experts and community members.

Tools: Online or hybrid hackathons can be organized using platforms like DevPost or Slack, where teams collaborate in real-time, allowing for broad participation from global experts.

7. Gamified Assessment

Gamification integrates game design elements into learning to increase engagement and motivation. In ULLs, students can participate in gamified urban simulations or serious games that challenge them to solve urban problems under different scenarios and constraints (Voytenko et al., 2016).

Simulation Games: Digital games or custom-built urban planning games can be used to simulate real-life urban challenges, such as resource allocation, infrastructure planning, and community management.

Points and Badges: Students can earn points, badges, or levels as they progress through various stages of urban problem-solving, and their performance can be evaluated based on creativity, resourcefulness, and collaboration. In the Erasmus+ Project Placemaking for Inclusion this badges system was successfully implemented.

8. Impact-Based Assessment

In ULLs, the real-world impact of students' interventions is a critical measure of success. Impact-based assessments evaluate the social, environmental, and economic effects of student projects on the local community (Carayannis & Campbell, 2009).

Metrics: Assessments can include community satisfaction surveys, environmental impact assessments, and economic viability reports of student projects.

Engagement Tools: Tools like SurveyMonkey or Qualtrics can be used to gather feedback from stakeholders and community members on the students' contributions and the perceived value of their interventions.

9. Pop-Up Studios and Public Exhibitions

Assessment through public engagement can involve pop-up studios, Urban Showcases or public exhibitions where students showcase their work to the community, stakeholders, and urban planners. This allows for real-time feedback and reflection on the effectiveness of their urban interventions (Franz et al., 2015).

Pop-Up Urban Labs or Urban Showcases: Students can create temporary urban labs or exhibitions in public spaces to engage with the community and receive feedback on their work.

Public Engagement Assessment: The public response, level of engagement, and feedback from community members can form part of the assessment, offering insights into the social relevance and inclusivity of students' work.

6. DESIGNING AND IMPLEMENTING ULLS

Thematic vs. Territorial Living Labs

When designing and implementing Urban Living Labs, there is a critical decision to be made between adopting a Thematic or Territorial approach, or potentially blending elements of both.

Thematic Living Labs focus on specific themes or topics, such as the built environment, urban governance, air quality or sustainability. This approach allows for an in-depth exploration of particular issues, attracting participants with specific interests and expertise. Thematic living labs provide a concentrated environment for research and innovation within a particular domain, fostering specialized knowledge and solutions. It could potentially also be easier to collaborate on a macro-level with international partners on a similar topic.

Territorial Living Labs, on the other hand, emphasize the local context and involve the community in addressing broader challenges or opportunities within a specific geographic area. (This approach is exemplified by initiatives like Stefania's project in Naples, which engages the local community in co-creating solutions tailored to the needs and characteristics of the area). Territorial living labs promote community engagement and holistic solutions that consider the unique cultural, social, and environmental aspects of the locale.

Both approaches have their merits. Thematic Living Labs offer depth and specialization, while Territorial Living Labs foster community engagement and holistic solutions. The choice between them depends on the objectives of the project, the interests of potential participants, and the context in which the living lab operates. It is also possible to create a hybrid model that combines thematic focus with local relevance, offering a comprehensive and inclusive environment for experimentation and innovation. One can even alternate between the two depending on the cycle or project.

Initial Assessment and Context Analysis

Designing and implementing an Urban Living Lab (ULL) begins with a thorough initial assessment and context analysis. This involves understanding the local urban context, including socio-economic conditions, governance structures, and key urban challenges. The assessment should identify potential sites for the ULL and evaluate their suitability based on factors such as accessibility, community needs, and available resources.

Conducting a context analysis involves gathering and analyzing data from various sources, including demographic statistics, environmental assessments, and socio-economic reports. Engaging local stakeholders during this phase is crucial to ensure that the assessment accurately reflects the community's needs and priorities. This collaborative approach helps build a foundation of trust and ensures that the ULL is responsive to local conditions.

Stakeholder Mapping and Engagement

Stakeholder mapping and engagement are critical components of the ULL implementation process. This involves identifying key stakeholders from the quadruple helix model and understanding their roles, interests, and potential contributions to the ULL.

Effective stakeholder engagement begins with mapping out all relevant actors, including local government officials, community leaders, business representatives, academic researchers, and civil society organizations. This mapping process helps

identify potential collaborators and ensures a comprehensive understanding of the stakeholder landscape.

Once stakeholders are identified, organizing initial meetings and workshops is essential to build trust, establish a common vision, and foster collaboration. These initial engagements should focus on aligning stakeholder objectives, discussing potential project ideas, and identifying shared goals. Transparent communication and active participation are key to building a strong foundation for ongoing collaboration.

Curriculum and Activity Development

Developing the curriculum and activities for a ULL involves designing an interdisciplinary curriculum that integrates urban design, urban pedagogy, non-formal educational methods, and practical, hands-on learning experiences. Activities should be planned to address real-world urban challenges and promote stakeholder engagement. This includes organizing workshops, field visits, and collaborative projects that provide students with practical skills and knowledge.

The curriculum should be structured to include both theoretical and practical components, ensuring a balanced learning experience. Theoretical modules might cover topics such as urban sustainability, participatory planning, and digital technologies, while practical modules involve hands-on activities like community mapping, prototyping, and stakeholder interviews.

Incorporating elements of the New European Bauhaus and Erasmus+ programs can enhance the curriculum. For instance, design thinking workshops inspired by the New European Bauhaus can encourage creative and aesthetic approaches to urban challenges. Similarly, Erasmus+ mobility projects can provide opportunities for students to engage in international collaborations and gain diverse perspectives.

Below you can find an in-depth description of the Belgian thematic urban youth living lab, *the Academy for Urban Action*, developed by Urban Foxes and supported & implemented by the VUB & ULB (Brussels' Universities).

It is important to mention that this project was a youth-initiated project. After a EU piloting project (Solidarity Projects as part of the European Solidarity Corps), our youngsters had the wish to continue their journey, thereby creating a local and more durable youth movement. A do-tank of young people learning non-formally about urban topics and trying to make an impact on the local context. The youth co-created the visual identity themselves in order to create a higher sense of ownership and to have them in the driver's seat of the project. This also included the ability to decide on the process, topics, partners, experts, and outputs & activities. Youngsters between 15

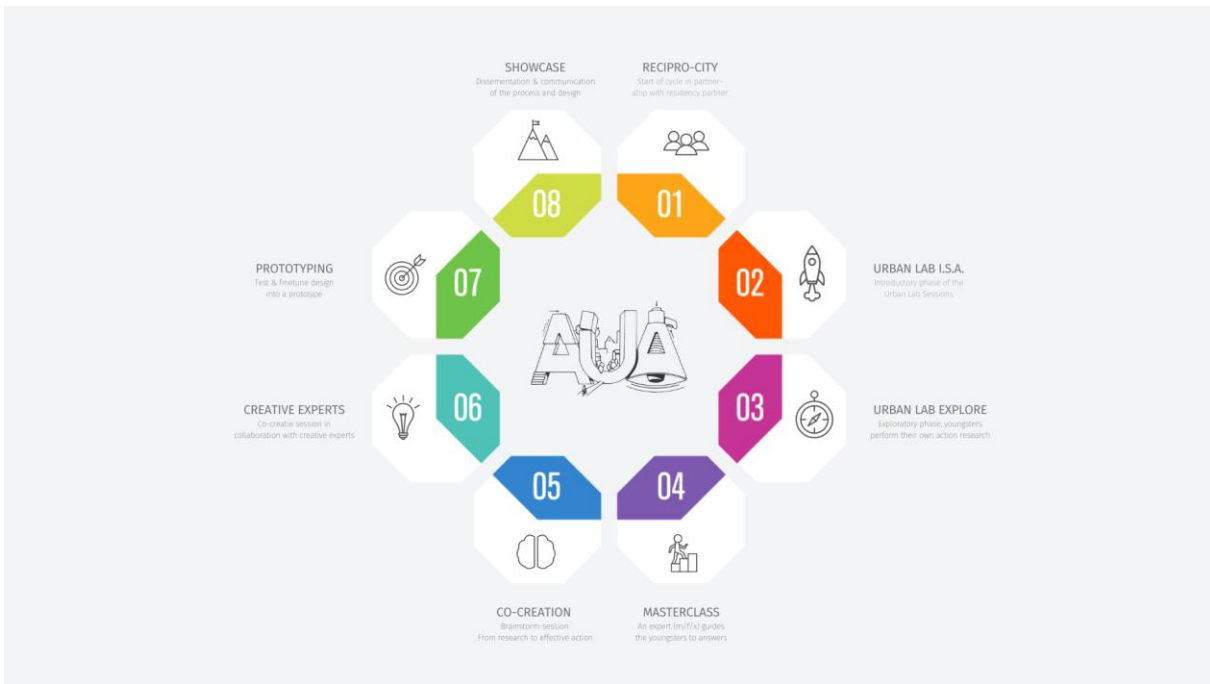
and 25 years would choose the topic themselves after which the coordinator/facilitator would propose an action plan for the upcoming thematic cycle (see below). Our youth were not paid as youth researchers but were valorised through food, fun activities, ownership and international mobilities. Once could consider paying them as volunteers in order to mitigate the competition between their wish to participate in youth work and their student jobs.



Figures 4-6: Photos from the Academy for Urban Action, Urban Foxes



Figure 7: Photos from the Academy for Urban Action, Urban Foxes



Figures 8-9: The Academy for Urban Action, Urban Foxes

Venue: In 2018, Urban Foxes didn't have an adequate space to organize workshops. In order to use this apparent weakness to our advantage, we decided to focus on the city as a learning environment, thereby treating the city as a classroom. It also stimulated us to enter in dialogue with partners that had spaces available, thereby also facilitating the sharing of their spaces. We were able to find 4 different partners for 4 different cycles that were willing to offer this space free of charge on Wednesday afternoons and occasionally on Saturday mornings.

Recipro-City: As the AUA was not only a youth-initiated but also youth-led project, it was crucial that transparency, dialogue and the exchange of the expectations stood centrally in our process. That is why we always started a new cycle with a session that would allow for exchange between the youth and the provider of the space. Thereby not only getting to know each other, but also their local context, needs and activities. We made it clear to the providing partners that even though we were extremely thankful for being able to use the space, this would not mean that we would propose activities or outcomes that would necessarily synergise with their co-mission, e.g. for the first cycle we collaborated with the Kaaitheater. We explained that although we are in a theater, we could not promise any theater-related creative output. For the partners we had, this was absolutely not a problem, they were mostly happy that they could support a youth project. Furthermore, some of these larger socio-cultural institutions have explicitly mentioned in their bylaws and mission statements that they would act as supporters of local and social projects, which allowed us to create a win-win situation through our collaboration.



Figures 10-11: Photos from the Academy for Urban Action, Urban Foxes

Urban Labs: During the 2 or 3 Urban Labs both the Initial Situational Analysis was performed, often in an informal way, in order to understand the knowledge of the participants. We sometimes also opted for immersing the participants in the topic through hands-on activities, collecting the questions afterwards for future use. The collection of these questions and the iterative forward thinking regarding creating future impact and/or possible output and actions, were quite important for us in order to have an ongoing dialogue, learning and creative innovation process. We believe that this approach was more organic and productive than a more punctual brainstorming regarding the prototyping ideas. Regarding the activities, it is important to note that the always aimed for non-formal activities, going from City Expeditions to Interactive presentations and good practices visits.



Figure 12: Photo from the Academy for Urban Action, Urban Foxes



Figure 13: Photo from the Academy for Urban Action, Urban Foxes

Urban Masterclass: Prior to this masterclass we had already identified a relevant expert in the field of the selected cycle topic. A few weeks ahead of his/her/x intervention we took the time to collectively prepare this session. The reasons were twofold, firstly we wanted to ensure the attractiveness and relevance of the session co--led by an external expert in order to maintain the engagement, fun and appropriateness of the session for our young participants. Secondly, it was also a way to familiarize the often academic experts with the power of non-formal education and tools. Thereby also creating an impact on higher education. Sometimes we opted to facilitate the sessions together, as a kind of a duo, in case the expert preferred this approach, often resulting in a nice dialogue or metaphorical symphony between the respective expertises of the expert and the facilitator. Below an example of a city tour together with Dr. Raf Pauly, Urban Sociologist.



Figure 14: Photo from the Academy for Urban Action, Urban Foxes

Co-Creation: The co-creation phase included sessions 5-6-7 (and sometimes even more). During these sessions the floor was completely given to the participants, of course with support and guidance of the facilitator, in order to brainstorm and co-create an impactful output linked to their cycle topic. It is important to mention that the participants received a participatory budget (between 1000 and 1500 euros) and complete creative freedom during this process. With this budget, the participants could buy materials, cover printing costs, hire creative experts to help them create the output, purchase an app, etc. The fact and light pressure that they would have to present their process and output during the Urban Masterclass, motivated them to stay on track to deliver a timely quality proposal. Of course, we took the stance that the process and the wellbeing would always be more important than the results, and the facilitators always tracked these things carefully throughout the project. Some examples of outputs created by the participants were:

- An Urban Podcast Walk where one can listen and walk through a designated mapped itinerary. By doing so, you hear how the chosen stakeholder (refugee, real estate developer, activist, new resident, teenage girl) experiences the city and its different places, referring to scenarios and important urban topics such as gentrification, the right to the city, safety, gender-inclusive cities, etc.
- A multilingual card game, *The City and I*, with questions on how people see, experience and want to improve their city.
- Walk in her Shoes: A map of Brussels with various recommendations to make spaces more gender-inclusive. As well as an organized walking tour using this

map where the teenage girls could give their testimonies live and also give way for dialogue between the youth and the other participants.

- Swipe for Brussels: A Tinder-like app where people could swipe places instead of people. That way the youth could find out which places in Brussels were liked and which weren't.

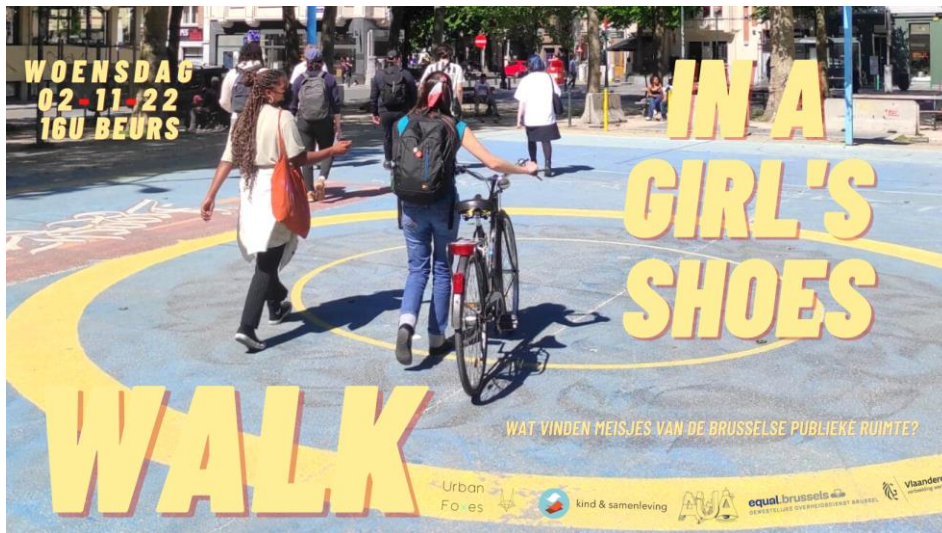


Figure 15: Photo from the Academy for Urban Action, Urban Foxes

Urban Showcase: During this moment the youth developed the activities, organized the showcase, taking care of the invitations and communication, and took the floor in explaining their process and tools. We witnessed a boost in their confidence and ownership during and after this activity. Apart from friends and family, it is also a perfect time to invite other stakeholders from the quadruple helix in order to be involved in follow-up activities.

Figure 16: Photos from the Academy for Urban Action, Urban Foxes



Figure 16: Photos from the Academy for Urban Action, Urban Foxes



Figure 17: Photos from the Academy for Urban Action, Urban Foxes



Figure 18: Photos from the Academy for Urban Action, Urban Foxes

Pilot Projects and Workshops

Implementing pilot projects and workshops is a key step in the ULL process. Pilot projects allow for testing the ULL framework and methodologies, providing valuable insights and feedback for refinement. Workshops should focus on real-world problem-solving, stakeholder engagement, and interdisciplinary collaboration. These activities provide students with opportunities to apply their academic knowledge in practical contexts and engage with diverse stakeholders.

Pilot projects should be selected based on their relevance to the local context and potential for impact. For example, a pilot project might involve designing a green public space in a densely populated neighborhood or developing a digital platform to enhance community participation in local governance. These projects should be implemented in

phases, allowing for iterative learning and adaptation based on feedback from stakeholders.

Workshops should be designed to foster active participation and collaboration. Interactive methods such as role-playing, simulations, and collaborative mapping can enhance engagement and learning. Workshops should also provide opportunities for reflection and feedback, ensuring that participants can learn from their experiences and contribute to the ongoing development of the ULL.

Evaluation and Scaling Up

Evaluating the outcomes of pilot projects is essential for refining the ULL framework and ensuring its effectiveness. This involves assessing the impact of the projects using qualitative and quantitative metrics. Based on the evaluation, the framework can be refined and adapted to address identified challenges and opportunities. Scaling up the ULL model to other cities involves developing a strategy that takes into account local contexts and best practices, ensuring that the solutions developed are sustainable and impactful.

Evaluation should be an ongoing process, involving regular assessments of project progress and outcomes. Metrics for evaluation might include indicators such as community satisfaction, environmental impact, and economic viability. Engaging stakeholders in the evaluation process ensures that their perspectives are considered and that the ULL remains responsive to community needs.

Scaling up the ULL model involves sharing best practices and lessons learned with other cities and regions. This can be facilitated through networks of ULL practitioners, academic conferences, and collaborative platforms. Developing a toolkit or guide based on the ULL experience can also support other cities in implementing similar initiatives.

7. CONSTANTS AND FIXED CRITERIA FOR URBAN LIVING LABS (ULLs)

Implementing ULLs requires adherence to certain constants and fixed criteria to ensure their success. These guidelines help maintain the core values of inclusivity, transparency, iterative learning, community focus, and sustainability.

1. Inclusivity and Diversity

a. Fixed Criteria:

- Representation: Ensure diverse representation from all stakeholder groups (academia, industry, government, and civil society), including marginalized communities.
- Equal Participation: Establish equal opportunities for all participants to contribute, ensuring no single group dominates the process.

b. Variable Elements:

- Diversity Metrics: Regularly assess and adjust diversity metrics to reflect the evolving demographics of the community.
- Outreach Programs: Implement targeted outreach programs to engage underrepresented groups and ensure their participation.

2. Transparency and Accountability

a. Fixed Criteria:

- Open Communication: Maintain transparent communication channels among all stakeholders.
- Documented Processes: Ensure all decisions, processes, and outcomes are documented and accessible to all participants.

b. Variable Elements:

- Communication Platforms: Utilize different communication platforms (e.g., online portals, social media, community meetings) to ensure broad accessibility.
- Feedback Mechanisms: Adapt feedback mechanisms to suit the preferences and needs of the community, ensuring continuous input from all stakeholders.

3. Iterative Learning and Adaptation

a. Fixed Criteria:

- Continuous Improvement: Embrace an iterative approach that involves continuous learning, feedback, and adaptation.
- Evaluation Framework: Establish a robust evaluation framework to measure progress and identify areas for improvement.

b. Variable Elements:

- Learning Tools: Implement various learning tools (e.g., workshops, seminars, online courses) to foster ongoing education.
- Adaptation Cycles: Define flexible adaptation cycles that allow for regular review and adjustment of strategies based on feedback and new insights.

4. Community-Centered Approach

a. Fixed Criteria:

- Needs Assessment: Conduct comprehensive needs assessments to understand the aspirations and challenges of the local community.
- Community Involvement: Ensure active involvement of community members in decision-making processes to develop relevant and impactful solutions.

b. Variable Elements:

- Engagement Strategies: Employ diverse engagement strategies (e.g., town hall meetings, focus groups, surveys) to gather input from the community.
- Project Prioritization: Regularly update project priorities based on ongoing community feedback and emerging needs.

5. Sustainability

a. Fixed Criteria:

- Sustainable Practices: Integrate sustainable practices in all activities to promote environmental, social, and economic sustainability.
- Long-Term Impact: Focus on projects and solutions that have long-term benefits for the community and environment.

b. Variable Elements:

- Sustainability Metrics: Adapt sustainability metrics to align with local environmental conditions and community values.
- Resource Allocation: Flexibly allocate resources to support the most impactful and sustainable initiatives.

6. Practical Implementation Tips for Cultural Mediators

1. Inclusivity and Diversity:

Tips for Implementation:

Diverse Representation: Ensure your participant list includes a mix of stakeholders from different backgrounds and sectors.

Safe Spaces: Create an environment where all participants feel safe and respected. Use icebreakers and team-building activities to break down barriers.

2. Transparency and Accountability:

Tips for Implementation:

Clear Communication: Use clear and simple language to explain processes and decisions. Regularly update all participants on progress and changes.

Open Records: Keep records of meetings and decisions accessible to all stakeholders. Use shared online platforms for transparency.

3. Iterative Learning and Adaptation:

Tips for Implementation:

Regular Feedback: Incorporate regular feedback sessions in your schedule. Use surveys, suggestion boxes, and open forums to gather input.

Flexible Planning: Be ready to adjust your plans based on feedback and new insights. Foster a culture that values continuous improvement.

4. Community-Centered Approach:

Tips for Implementation:

Community Surveys and/or focus groups such as neighborhood dinner: Conduct surveys to understand community needs and priorities. Use this data to guide your project focus.

Local Partnerships: Build partnerships with local organizations and community leaders to strengthen your engagement and impact.

5. Sustainability:

Tips for Implementation:

Green Practices: Implement eco-friendly practices in your workshops and projects, such as reducing waste, using renewable resources, and promoting recycling.

Long-Term Planning: Plan projects with long-term sustainability in mind. Ensure they can continue to benefit the community beyond the duration of the ULL.

8. ROLE AND COMPETENCES OF CULTURAL MEDIATORS/FACILITATORS

Profile and Experience:

Educational Background: A background in urban studies, social sciences, education, or a related field is beneficial.

Professional Experience: Experience in facilitating workshops, particularly in multicultural and interdisciplinary settings. Previous work in urban development, community engagement, or similar fields is advantageous.

Training in Mediation: Experience or training in mediation and conflict resolution.

Knowledge, Skills, and Attitudes:

Knowledge:

Urban Topics: Understanding of urban planning, design, sustainability, and social dynamics in urban contexts.

Pedagogy: Knowledge of educational principles, especially in higher education settings, to facilitate learning and engagement.

Cultural Awareness: In-depth knowledge of cultural dynamics, including awareness of different communication styles, cultural norms, and potential sources of cultural conflict.

Stakeholder Dynamics: Understanding the roles, expectations, and motivations of the different stakeholders in the quadruple helix (academia, industry, government, and civil society).

Skills:

Facilitation Skills:

Active Listening: Ability to listen attentively and reflect on participants' input.

Questioning Techniques: Use open-ended questions to stimulate discussion and critical thinking.

Neutrality: Maintain a neutral stance, avoiding bias or favoritism towards any stakeholder group.

Summarizing and Paraphrasing: Summarize discussions to ensure clarity and shared understanding.

Conflict Resolution:

Mediation Techniques: Skilled in mediation techniques to resolve conflicts constructively.

Emotional Intelligence: High emotional intelligence to manage emotions and foster a positive environment.

Communication Skills:

Clear Articulation: Ability to articulate ideas clearly and concisely.

Multilingual Abilities: Proficiency in multiple languages can be a significant asset, especially in multicultural settings.

Organizational Skills:

Time Management: Effectively manage time to keep discussions on track.

Coordination: Coordinate activities and stakeholders efficiently.

Creativity and Fun:

Engaging Activities: Design and implement creative activities that make the workshops enjoyable.

Gamification: Incorporate gamification elements to keep the atmosphere lively and interactive.

Enthusiasm: Maintain a high level of enthusiasm to inspire and motivate participants.

Attitudes:

Being kind and patient

Empathy: Demonstrate empathy towards all participants, showing understanding and sensitivity to their perspectives and experiences.

Patience: Exhibit patience, particularly when dealing with complex discussions or conflicts.

Open-mindedness: Be open to new ideas and different viewpoints, fostering a culture of inclusivity and innovation.

Respect: Show respect for all participants, regardless of their background or position.

Flexibility: Be adaptable to changing dynamics and responsive to the needs of the group.

Kindness: Approach interactions with kindness and understanding, creating a welcoming and supportive environment.

Behavior and Conduct:

1. Establishing Trust:

Build Relationships: Develop strong, trust-based relationships with all participants through consistent, respectful, and open communication.

Transparency: Be transparent about processes, decisions, and any potential biases.

2. Creating a Safe Space:

Confidentiality: Maintain confidentiality of sensitive discussions to create a safe and trusting environment.

Inclusivity: Ensure that all participants feel included and valued, actively working to involve quieter or marginalized voices.

3. Promoting Engagement:

Encourage Participation: Use various facilitation techniques to encourage active participation from all stakeholder groups.

Provide Feedback: Offer constructive feedback and encourage participants to provide feedback as well.

4. Managing Dynamics:

Equal Opportunities: Ensure that no single stakeholder group dominates the discussion, using structured formats to give everyone an opportunity to speak.

Monitor Interactions: Be vigilant in monitoring interactions to quickly address any signs of dominance, exclusion, or conflict.

5. Continuous Improvement:

Self-Reflection: Regularly reflect on their own performance and seek feedback to improve facilitation techniques.

Professional Development: Stay updated with the latest developments in urban studies, pedagogy, and cultural mediation through continuous learning and professional development.

By implementing these guidelines, cultural mediators can effectively facilitate inclusive, engaging, and productive workshops for Urban Living Labs. They will be able to create a balanced environment where all stakeholders can collaborate on equal footing, ensuring the success of the ULL initiatives.

9. CONCLUSION

Deliverable 6 offers a comprehensive approach to understanding and leveraging Urban Living Labs (ULLs) as powerful educational spaces for situated learning. By integrating key principles of situated learning with the methodologies of ULLs, the framework presented within this deliverable positions ULLs as dynamic, hands-on environments where students can engage directly with real-world urban challenges. This approach emphasizes the value of learning that occurs in context, offering students opportunities

to apply their academic knowledge to complex issues such as urban sustainability, social inclusion, and governance. Through several interactive activities ULLs create immersive experiences that foster active participation and engagement, allowing students to gain deep insights into the urban environments they study.

The suggested pedagogical framework systematizes the expected learning outcomes, which includes a broad range of skills, competencies, and knowledge that students should develop throughout their participation in ULLs. These learning outcomes are not limited to technical knowledge but also encompass transferable soft skills, such as communication, critical thinking, and collaboration. The emphasis on these skills reflects the importance of fostering holistic development in students, preparing them to tackle complex urban challenges in innovative and inclusive ways. Furthermore, the framework outlines methods for assessing these outcomes, ensuring that the impact of ULLs as educational spaces can be measured and validated.

Another significant aspect of the proposed pedagogical framework is the participatory nature of the ULL process, which allows students to take ownership of their learning and to create outputs that have a real impact. This can be achieved with activities that reinforce the importance of autonomy, creativity, and teamwork, encouraging students to collaborate with diverse stakeholders, including academics, local authorities' representatives and local communities. Therefore, the role of facilitators in such activities is crucial to promote safe spaces for dialogue, ensure that all voices are heard, and to help students develop the confidence and skills necessary to become active contributors to urban development discussions.

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