

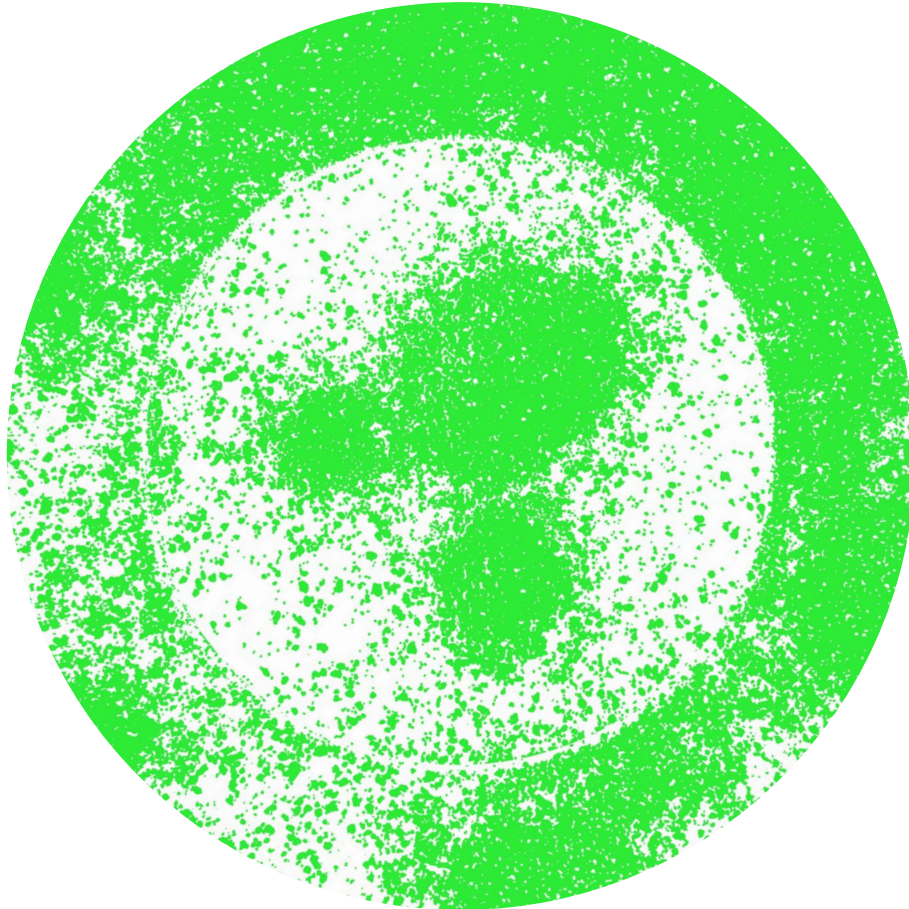


Research-based collaboration: A toolkit for teaching and learning



University of
Zurich^{UZH}

Research-based collaboration: A toolkit for teaching and learning



Züri Urban is a teaching-research initiative of the University of Zurich's Social Geography and Urban Studies Unit. Our primary objective is to promote collaboration by integrating principles of research-based teaching with public engagement. Through collaborations with non-university partners in the city, project participants engage in a process of mutual learning and knowledge production alongside urban actors. With our approach, we seek to challenge conventional divisions between researchers and research subjects, as well as educators and learners.

The present toolkit was developed in the project *KoLab: Kollaborative Lehrforschung in der Stadt*, funded by the 2022 open_innovation Teaching Fund (ULF) of the University of Zurich (UZH) – an initiative supporting the implementation of teaching innovations in the UZH curriculum. It builds on the reflections of all participants from the collaboration, but ultimately is written in our voice.

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1 Introduction

Though knowledge is increasingly developed in collaboration between academic, industry and civil society partners, knowledge production in teaching often remains entrenched in traditional roles and formats. To integrate collaborative research within the university curriculum, research-based projects have become a particularly fruitful teaching format. Building on a broad scholarship [Bibliography] around collaboration and research-based teaching, it is clear that engaging with and including non-university partners in the learning processes and university curricula involves major challenges. It requires the integration of multiple interests, voices, as well as knowledge and social positions, particularly when working with vulnerable groups. How to keep the balance between the output-oriented research and teaching objectives of academic institutions and the vulnerabilities faced by partners engaged in this research? How to establish fair and non-extractive relationships, considering the historic role of academic institutions in producing epistemic injustice? And how to translate such principles

of fairness for a classroom setting?

This toolkit seeks to facilitate the development of collaborations with non-university partners in research-based teaching projects. It provides practical guidance, resources and examples for educators in social science university courses, whereby we draw particularly from experiences in urban research. Its target audience are educators who want to implement collaborative and innovative teaching that benefits learners, supports vulnerable non-university partners in the city and fosters interdisciplinary approaches to address worldly challenges. The objectives of this toolkit are to provide guidance and reflect on the challenges of:

1. developing **meaningful research-teaching collaborations** with non-university partners (NGOs, community and advocacy organizations and individuals) that account for their capacities and vulnerabilities;
2. synchronizing these collaborations with the **university curriculum** and the schedules of non-university partners;

3. creating formats, assignments and activities that integrate practical experiences and promote **in-class collaboration**, active learning, reflection and critical thinking;
4. **evaluating the results** of the collaboration as well as the quality of the collaboration itself.

To address these objectives, the toolkit draws from the collaborative research-based teaching project KoLab: Kollaborative Lehrforschung in der Stadt. The project concerned the collaboration between the Sans-Papiers Anlaufstelle Zürich (SPAZ), an association advocating for the rights of undocumented immigrants (known as Sans-Papiers) in Zurich and Züri Urban, a research-based teaching project of the Social Geography and Urban Studies Unit at the University of Zurich. The context of this project was a master's-level elective "Urban Geography: Research and Methods" in 2023. It involved course instructors, members of SPAZ, master's students in geography and Sans-Papiers who teamed up to conduct qualitative research about the housing of Sans-Papiers in Zurich.

Three mixed teams worked together and researched a given topic within the broader research theme of housing (e.g., housing biographies, conditions and legalities). The project concluded with each team internally reporting their research results and disseminating part of the outputs through an online exhibition and other outlets.

The tools have been developed through an evaluation of the project comprised of an online survey, self-reports by course instructors, students and Sans-Papiers, a focus group with some of the participating Sans-Papiers as well as an interview with the project partner. The aim of this evaluation was to better understand and respond to the challenges of this kind of collaboration. The four sections of the toolkit address diverse aspects of the entire process: planning collaborations [Section A], didactics of fostering collaborative relations between educators, learners and non-university partners [Section B], practicalities of doing the collaborative research itself [Section C] and evaluation considerations [Section D]. Each tool

has two elements that will facilitate its use: An introduction to key challenges and a checklist of considerations to address these challenges. In addition, some tools include practical examples of exercises.

The toolkit serves as a guide to navigating the design and implementation of collaborative learning focused on real-life problems. It is by no means a step-by-step recipe that can be followed blindly. The tools must be adjusted to the specific context allowing for situation-dependent learning experiences and goals as well as individual and collective needs, capacities, resources and interests.

Acknowledgements

We are especially thankful to Bea Schwager and Christian Jung, as well as our department colleagues Norman Backhaus, Itta Bauer, Sierra Deutsch, Luisa Gehriger, Fritz-Julius Grafe, Roger Keller, Sara Landolt, Annina Michel and Clara Guardado Torres. Finally, we thank Hannah Lora Freeman, the UZH Educational Development team and the UZH Teaching fund for their support.

This toolkit would not have been possible without the insights of students and Sans-Papiers who participated in GEO 422 in 2022 and 2023.

2 Glossary

Community-based research is a research approach to knowledge production that centers on real-life problems and seeks to integrate diverse stakeholders' perspectives in the research process. It concerns a process in which researchers, partners (e.g., community organizations, NGOs, advocacy groups) and the people whose everyday life and actions are at the center of the investigation assume roles as co-researchers. Thus, data is not merely collected about the participating individuals or groups but is rather collected in tandem with them through their active participation in the research process. As a participatory and collaborative process, community-based research operates on the basis of complementary goals between researchers and communities who join forces to produce socially relevant knowledge. The results of such research can be used by collaborators to address public institutions, practitioners or media debates, for instance, with an aim to foster positive social change.

Research-based teaching encompasses methodologies and pedagogical concepts that integrate research into university teaching. Its aim is that all participants actively engage in shaping the learning context thereby moving away from a passive student-as-consumer approach. This didactic approach operates on the principle that participants, regardless of their education level or prior knowledge, assume responsibility for a project. In this way, they can engage with concrete social issues and effectively learn through experiences rooted in real-world scenarios. By emphasizing shared responsibility and collaborative relationships between educators and participants, research-based projects can challenge traditional research-teaching divisions and hierarchical power dynamics, promoting a more cooperative learning environment (Lambert, 2009).

Epistemic injustice is a key concept in addressing the ethics of knowledge production and valuation. It encompasses injustices that hinder individuals' capacity to acquire, access and produce knowledge while also being acknowledged as knowledgeable individuals themselves. Following Miranda Ficker (2007), epistemic injustice becomes apparent when prejudices linked to one's identities influence the assessment of the significance, value and credibility of their experiences or knowledge. More broadly, it emerges when specific social experiences are marginalized, obscured or excluded from collective knowledge systems, consequently depriving some from understanding their own experiences as sources of knowledge. The historical tendency of academia and higher education institutions to devalue and exclude diverse forms of knowledge necessitates taking epistemic injustice seriously in reshaping research and teaching paradigms.

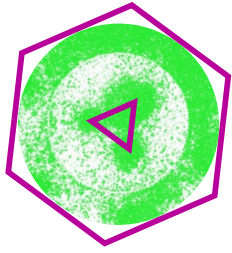
Knowledge co-production is a concept applied to policy, planning, transdisciplinary science collaborations, social science and community-based research. It describes the process by which all actors involved participate ideally on equal terms in the production and exchange of knowledge. Knowledge co-production challenges traditional hierarchical approaches to education and research by emphasizing values of participation, equity and justice embedded in learning experiences. This approach questions narrow understandings of “expertise” and authority over knowledge production by promoting an inclusive environment that values and engages with different forms of knowledge. Encouraging knowledge co-production in teaching requires cultivating critical thinking, inquiry and dialogue that enable learners to not only consume or provide information but also to actively contribute to creating knowledge.

Disclaimer

Due to the risk of harm, the ethical weight of developing these collaborations should not be taken lightly by convenors. Even under the best conditions of funding, institutional support, and job security, holding the responsibility for the hopes, consequences and experiences of participants in such a complex undertaking can be exhausting. These collaborations may reveal or even aggravate structural problems specific to institutions like the temporal demand and precarity of project-based funding or more general hazards like racism or sexism in the academy. Collaboration is not an elixir; it can have uneven, unintended, long-term impacts that should be considered, especially for initiators and participants whose tenure in a city is far from secure.

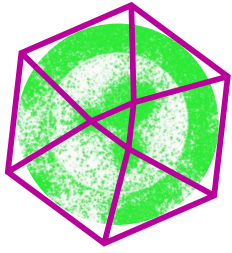
3 Roadmap

Plan



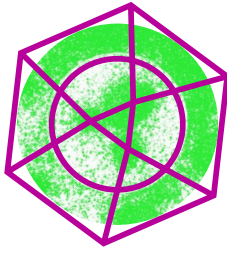
Finance

How to prepare a successful funding application



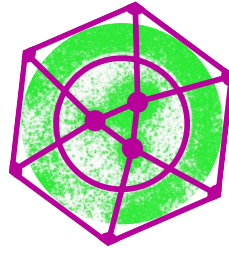
Network

How to develop a project in partnership



Spaces

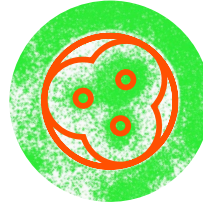
How to create spaces for collaboration



Curriculum

How to adjust to university requirements

Teach



Team-Building

How to build a team of co-researchers



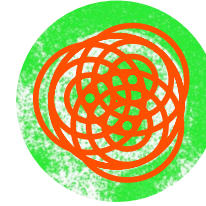
Roles

How to deal with roles and power relations



Sharing

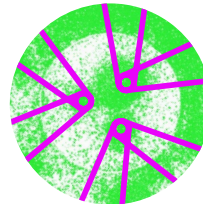
How to build inclusive knowledge sharing



Knowledges

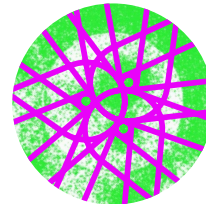
How to integrate diverse knowledges

Research



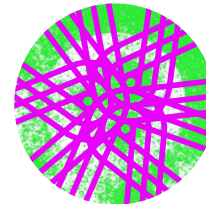
Questions

How to agree on research questions and goals



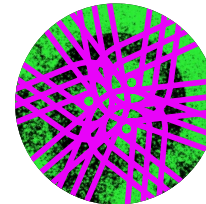
Data Collection

How to establish inclusive knowledge production processes



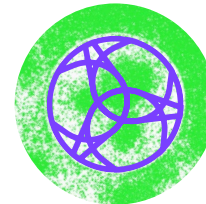
Analysis

How to interpret data from multiple standpoints



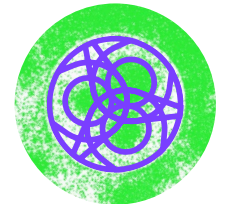
Dissemination

How to communicate findings to broader publics



Foci

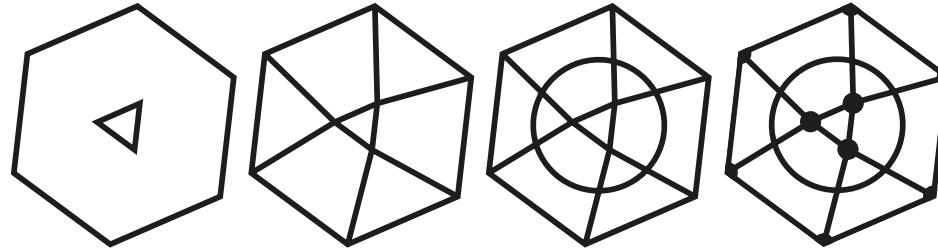
How to define evaluation framework



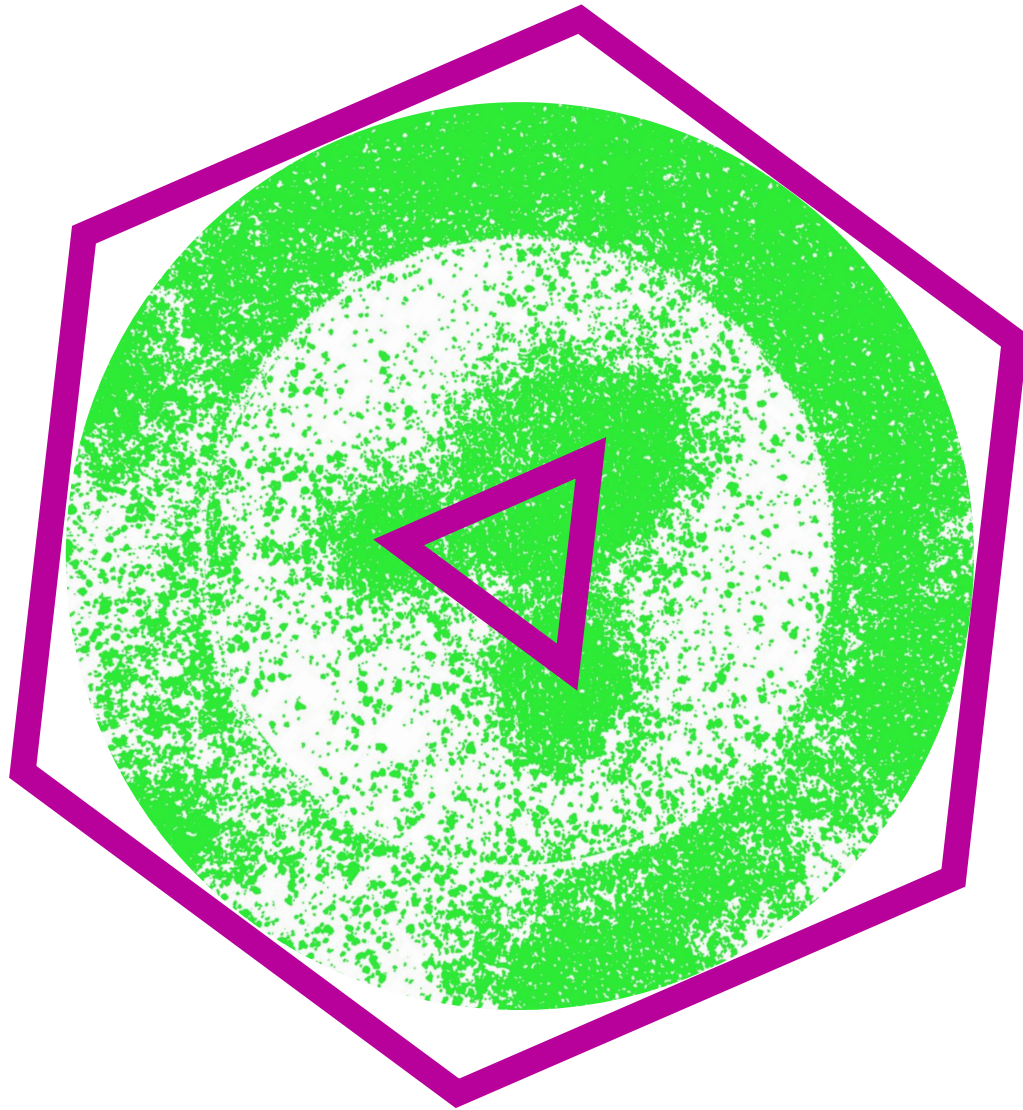
Methods

How to choose evaluation methods

Evaluate



A Planning collaborations between university and non-university partners



Tool 1

Financing research-based learning projects

Aim

Preparing a successful application to
finance your project and your partners



Tool 1

Financing research-based learning projects

Challenges and considerations

Funding collaborative research-based learning projects, especially when compensating non-university partners, poses challenges. Recognizing the institutional imbalance of academics (however precariously) employed at universities, in relation to non-university partners. Therefore, achieving greater resource parity between those parties is crucial. While the finan-

cial compensations depend on both the financial situation of partners and universities, it is always an indication of the valuation of people's time and contributions to the partnership. For partners in non-profit sectors, receiving financial resources is not only valuable, but also existential. Consider people's hours [Tool 5] and the living wage for all involved parties at all stages of the collaboration. Moreover, you may need to consider whether partners bear other, less tangible, costs (e.g., the use of their networks, contacts, phones and laptops) or resources they will need to enable participation (e.g., childcare) and compensate accordingly. Financial compensation and funding distribution depend on the classroom composition, the duration of the project and the number of collaborators involved.

Academic research funding often lacks provisions for honoraria or wages due to social insurance rules or institutional regulations. Research funding is generally allocated based on discovery and output rather than collaboration and process. Teaching grants offer a valuable alternative. Many institutions and foundations

Planning collaborations between university and non-university partners

make available teaching resources, for which research-based partnerships qualify exceptionally well. Some of these grants explicitly emphasize social engagement and innovation. Although they require additional outreach, exploring private or foundation funding can offer flexibility, but should be approached cautiously due to potential conflicts of interest and assessment implications for different goals of the collaboration or the partnership or the results.

Another key factor is the temporal scope of project-based funding, whether for research or teaching. This implies a limited timeframe for allocating financial resources to a partnership. Consider the impacts of this on short-term spending pressures, results and building trust [Tool 2]. Perhaps renewing funding or institutionalizing resources can prevent reducing the project to a one-time pilot test or innovation.



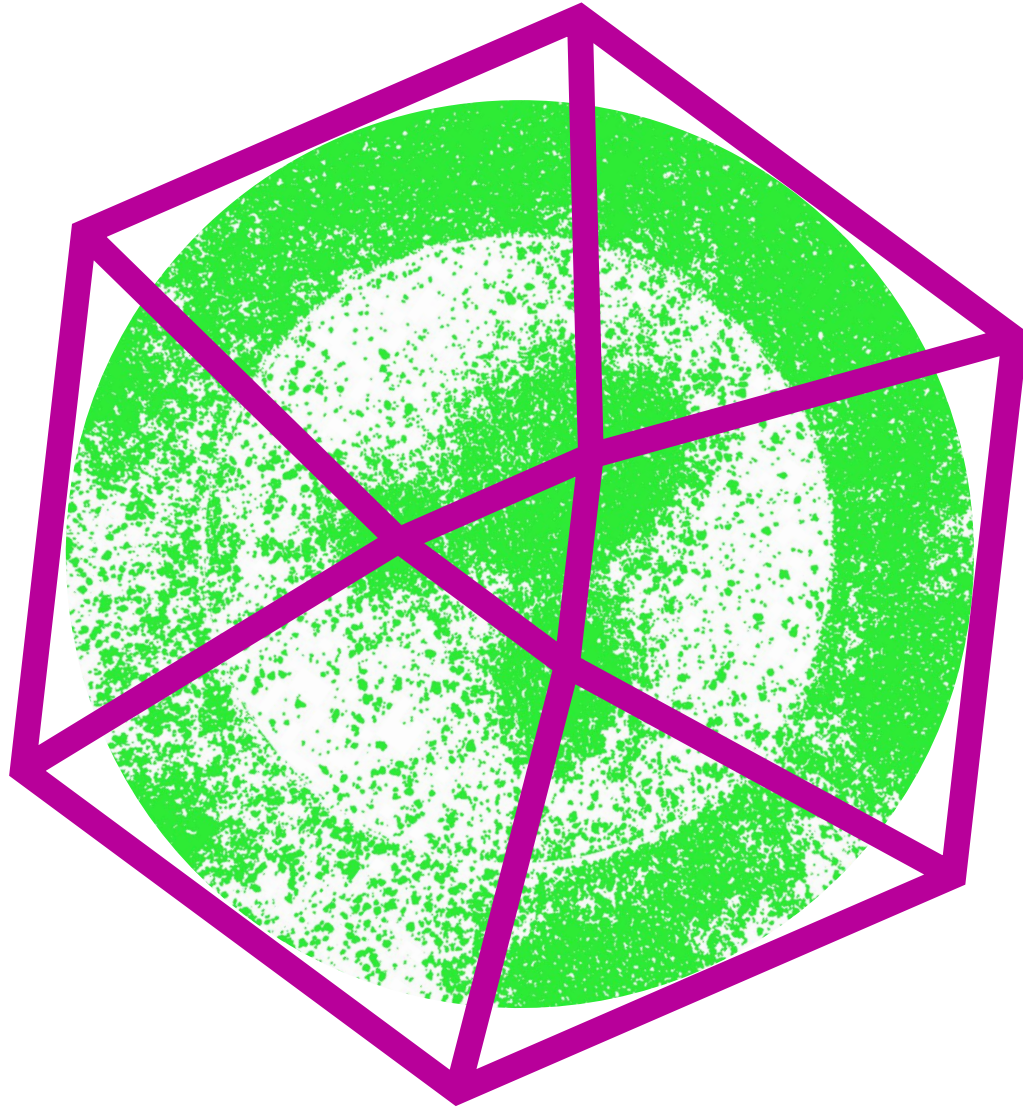
Tool 1

Financing research-based learning projects

Checklist

Planning collaborations between university and non-university partners

- Consider the admissible budget itemization of your partners' activities in research funding. You might need to frame this differently than wages or honoraria. The specific expertise of your partners might link well with budget lines for third-party contracts for research tasks (e.g., translation or lab work). Explain why your partners are experts for taking over these tasks rather than university students or staff.
- Highlight the educational value for students in your proposal. While your project might have wider societal impact might, focus on how it enhances learning. Explain what students can learn as researchers, including research design, methodologies and science communication to broader publics. Also highlight how the project enhances students' soft skills e.g., independent teamwork, project- and time- management and open communication.
- Considering social impact, your project proposal should stress how the research results can contribute valuable resources and knowledge to collaborative projects for addressing academic research gaps or different interest groups. Highlight how these contributions align with the funding institution's focus on public engagement and societal relevance.

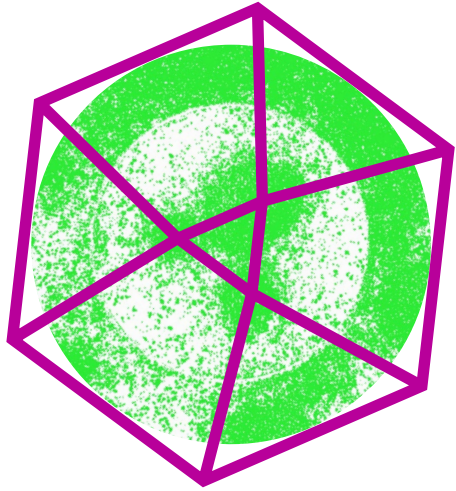


Tool 2

Developing a project in partnership

Aim

Identifying your partners, establishing relations of trust and a fair decision-making process that enables involved parties to negotiate goals, priorities and roles in the project



Tool 2

Developing a project in partnership

Challenges and considerations

Partnerships between university and non-university parties extend create a broader network that fosters accountability and shared expertise. Such collaborations constitute valuable institutional resources, which can be lost when staff and students move on. Before starting your project, research past and present collaborations between your institution and non-univer-

sity partners. Explore possibilities to expand or complement these existing networks, as these precedents may offer valuable institutional and contextual insights.

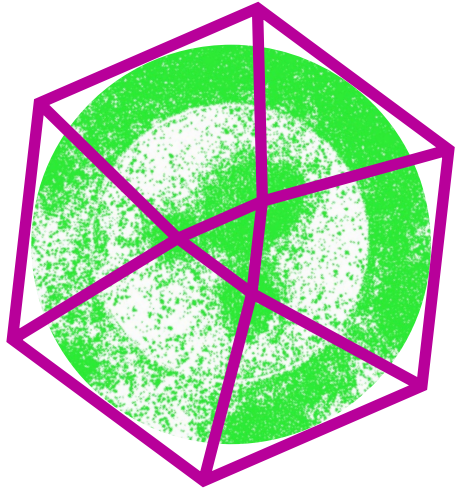
When seeking potential partner organizations, consider issues of power and epistemic injustice. Collaborative research projects offer a valuable opportunity to address understudied areas of research by centering marginalized experiences that have been historically excluded from academic institutions and the production of scientific knowledge. Partner organizations offer contextual expertise and can help identify research gaps and historical exclusions.

Establishing trust is a precondition for a long-term collaboration with non-university partners. Setting institutional responsibilities is a starting point to clarify risks, acknowledge disparities in bearing these risks and define the limits of convenors' control over possible events of implementing research in the social world. Trust is not just about contracts and intentions but it is built over time, with the initial years of collaboration being the most critical. To culti-

Planning collaborations between university and non-university partners

vate mutual trust, it is vital to comprehend the positions, interests and challenges of all parties involved, beyond their stated motivations. Consider the stressors, daily priorities or impending threats partners face. If a partnership is entirely run by precariously employed university staff and volunteers from partner organizations, conflicting priorities may arise.

In planning a partnership, it is crucial to make clearly defined roles, shared goals and individual interests explicit to provide clarity and avoid misunderstandings. This can be reiterated during challenging phases. There is always the risk of collaboration taking on outsourcing or service dynamics. For this reason, decision-making processes and times should be established together - even when some decisions can be made unilaterally. To maintain fairness, consider appointing a third-party project manager for contract and financial management.



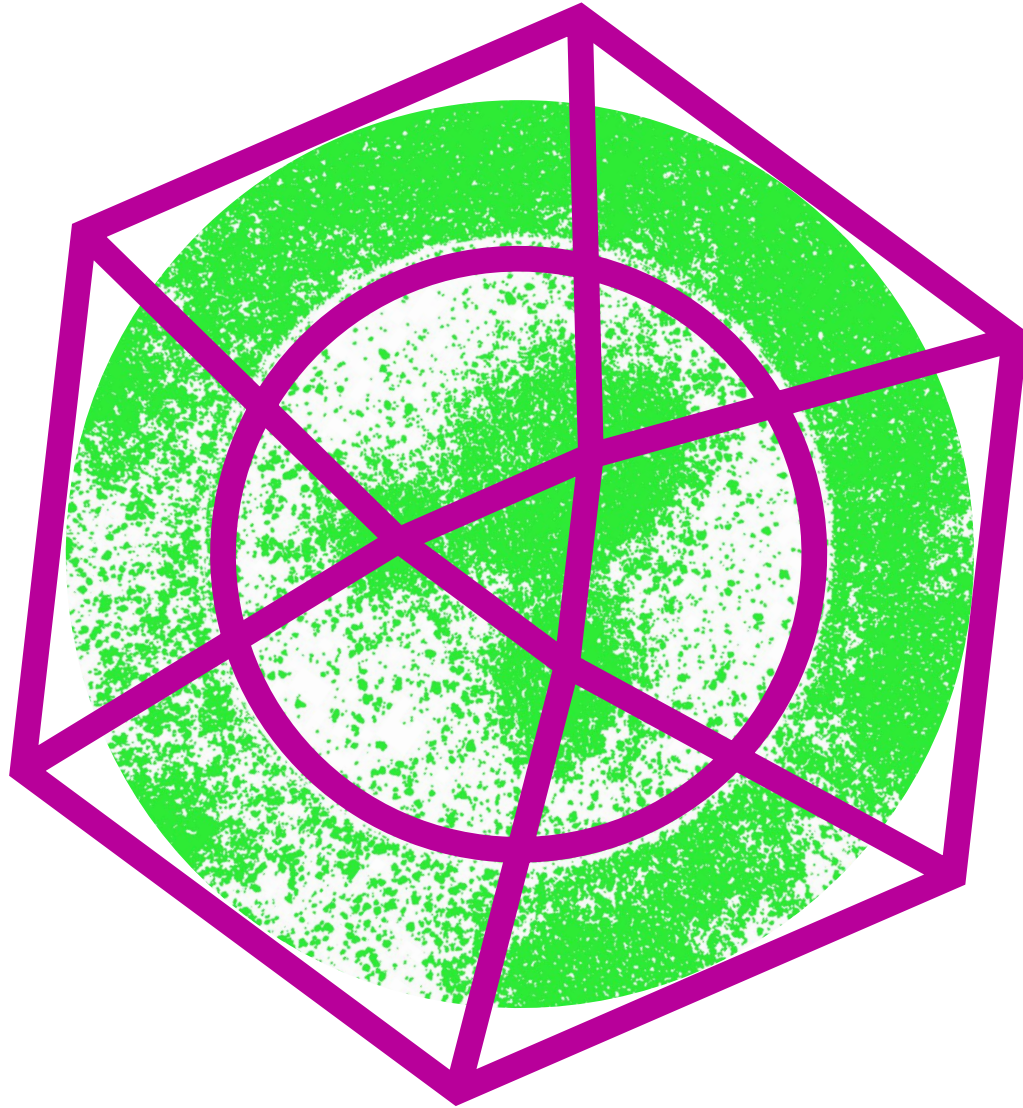
Tool 2

Developing a project in partnership

Checklist

Planning collaborations between university and non-university partners

- Review past projects and ask insights from your colleagues who organized collaborative projects. Learn from their experience.
- Clearly communicate your interests, motivations and expectations to build trust and mutual respect with your partners. Establish shared goals in writing, such as meeting notes from informal discussions. Also clarify your partners' goals or interests which may not be shared and where potential conflicts may arise.
- Discuss, identify and assign roles, tasks, responsibilities and obligations collaboratively with your partners. This may include agreements on financial compensation and remuneration methods. Define who is responsible for communicating expectations to all project participants. If there is an over-reliance on specific individuals, think about what happens if they are not available. Establish conditions of participation and compensation – do your partners feel beholden or are they able to quit as well? Will they still get compensated if they quit?
- Engage your partners in the teaching process. For instance, invite partner organizations as experts to contribute through lectures, workshops or excursions.
- Set a partnership timeline, even a provisional one to prevent that the partnership from being overshadowed by more urgent deadlines. Pre-scheduling the involvement of partners and their role in meetings long in advance to indicate its importance. Identify and address potential scheduling conflicts with semester timelines (e.g., registration and grading times). Collaborate with university ethics boards to address ethical concerns and prevent potential harms and risks to individuals.

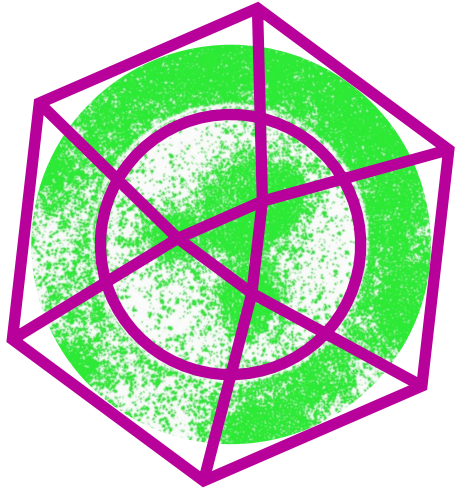


Tool 3

Creating spaces for collaboration

Aim

Ensuring that the physical, institutional, social and research spaces in which collaboration takes place that promotes access and belonging



Tool 3

Creating spaces for collaboration

Challenges and considerations

Spaces of collaboration encompass a variety of physical, institutional and social spaces in which partnership, learning and research unfold through your project. These spaces facilitate your collaboration, but they might also be transformed during your project. Everyday spaces that participants are familiar with (e.g., classrooms, personal spaces, community hubs)

entangle with or become research(ed) spaces.

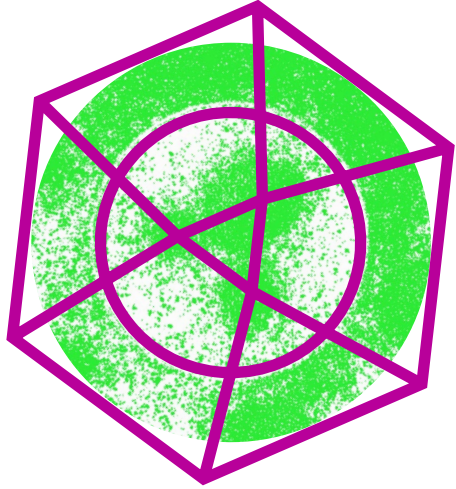
This process entails new responsibilities, requiring critical reflection on the alignment of these settings with the partnership goals. University spaces come with diverse baggage. They can be seen by partners as elitist, exclusive or intimidating. As powerful well-endowed institutions, they might bear the weight of colonial or exploitative relations to communities they are situated in. Or, the university can be viewed as a neutral, publicly-funded and inclusive institution, which provides accessible spaces and infrastructure. Consider the broader position of your university and whether its rooms are ideal setting for your collaboration.

Exploring other social spaces accessible to both parties, such as spaces the partner organization, neighborhood spaces or even public space outdoors can foster connection and open new types of interaction. However, any of these choices has practical implications, like these spaces' visibility and exposure, which could facilitate or hinder participants' candidness. Having access to a kitchen can facilitate joint

Planning collaborations between university and non-university partners

lunch breaks [[Tool 5](#)]. Reflect on how material features might influence the nature of discussions.

Reconfiguring the traditional classroom setup acknowledges its built-in power dynamics. Classrooms designed for learning, but they often designate hierarchical role divisions. When using classroom spaces, address these hierarchies by, for instance, re-organizing seating arrangements or ensuring equitable access to laptops and internet. Perhaps computer rooms might be a solution, but they are rarely conducive for discussion. Lastly, think about how different participants enter learning and research spaces- are they familiar, novel, encouraging or alienating? How can your project address these unequal positionings?



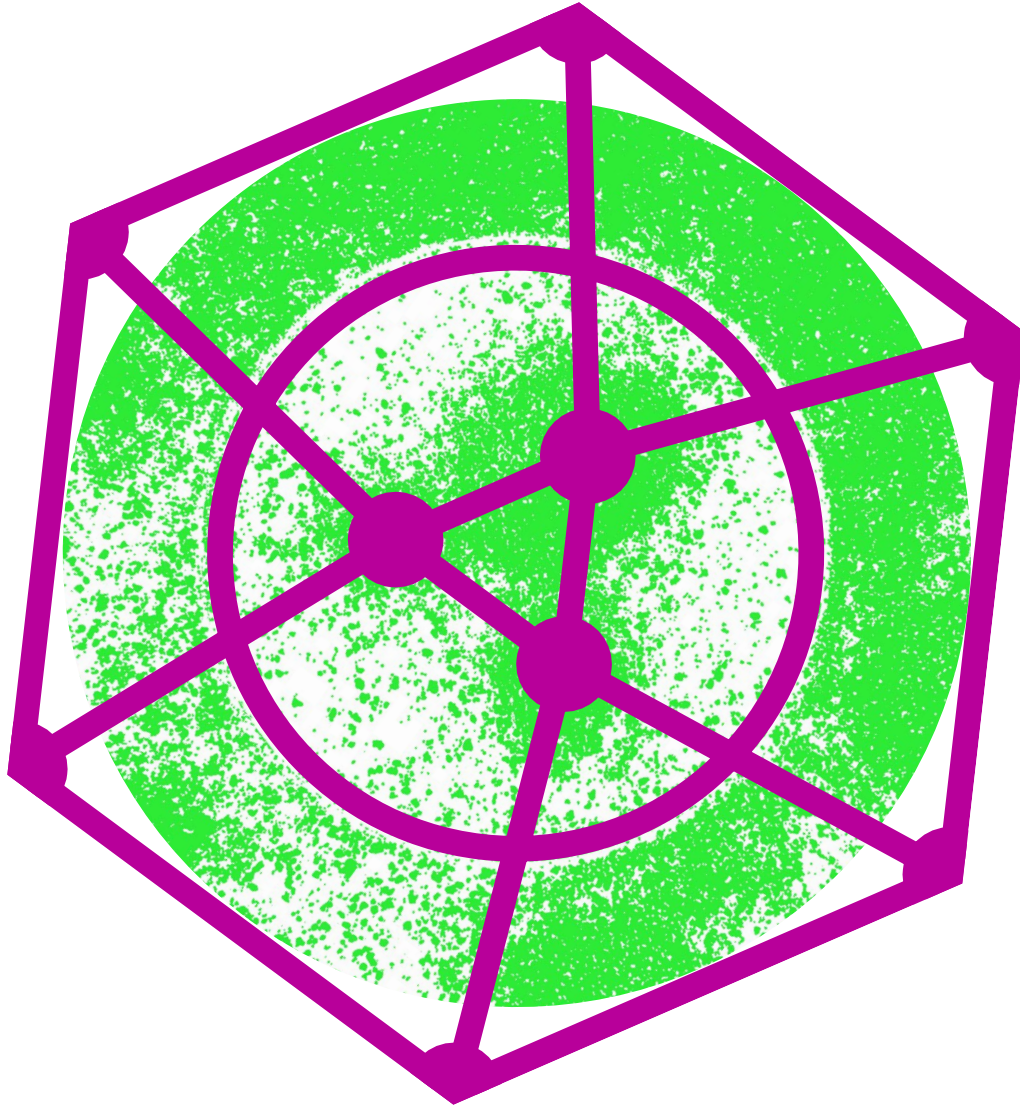
Tool 3

Creating spaces for collaboration

Checklist

Planning collaborations between university and non-university partners

- Discuss with your partner organization regarding available spaces or recommendations for suitable spaces. Extending your networks might be required to find suitable rooms.
- Review the project schedule and the practicalities that come with a location. Assess whether spaces are suitable for the different project phases, activities and events. For instance, the space requirements for a working group are different from a team-building event. Consider equipment, accessibility and distances involved for everyone. Do participants require IDs, are there possibilities to make coffee? Will you need internet or laptops, can guest access be pre-organized?
- Reflect on the meaning of choosing one location over another. How visible and safe are these spaces for everyone involved? Do all participants feel represented there? If meeting in a university space, keep in mind the demographic makeup of students and staff, as well as the university experience and cultural background of partners involved.
- To the extent possible, also select meeting times that are inclusive. Consider family, care or work responsibilities of participants.

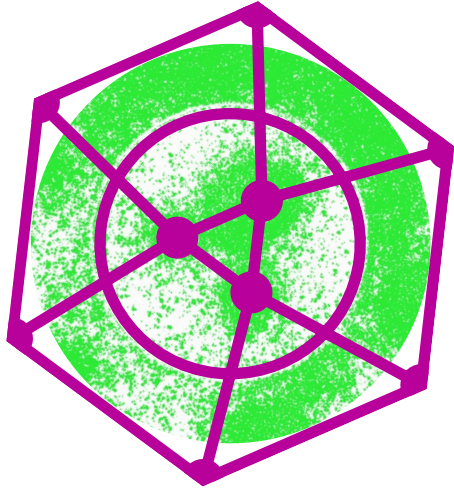


Tool 4

Embedding collaborative research in university curricula

Aim

Balancing between university requirements for a well-planned course structure and the pedagogical principles of in-class autonomy and self-organization



Tool 4

Embedding collaborative research in university curricula

Challenges and considerations

When collaborative research-based learning projects take place in the context of a university course, you need to adhere to pre-established conditions like credit systems, assignments, prerequisites and fixed schedules. These conditions can be restrictive for processes that take a long time, such as collective goal-setting,

research topic selection or inclusive decision-making.

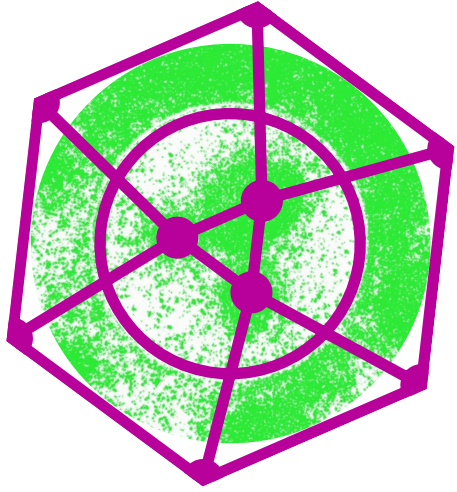
When specifying structures and conditions in the course syllabus, consider the scope of flexibility you have, bearing in mind also the extremely limited time of one or two semesters. You must distinguish what should be predetermined when setting up the partnership [[Tool 2](#)] (e.g., research topics, collaboration goals) and what can be decided collectively during the course. The balance between partnership, learning and research goals depends on the time available for negotiation and reflection. This often entails a trade-off between more dialogue and inclusive decision-making on the one hand, and more expeditiously producing an outcome, on the other. Setting overly ambitious goals can be counterproductive, as strict formalities or time pressure may negatively affect intangible aspects of collaboration, such as discussion culture and teambuilding [[Tool 5](#)].

Focusing on the process instead of the outcome is the central tenet of a successful partnership. Yet, university requirements, part-

Planning collaborations between university and non-university partners

nership expectations and students' ambitions all often focus on outputs - on doing or producing something "useful." However, partnerships are messy exactly because they involve different people and interests, which is what makes them simultaneously valuable and challenging. While it is impossible to plan for everything, it is possible to be prepared for the fact that there will always be surprises and experiments in doing partnership projects. Managing expectations will be crucial, as reconciling the prioritization of the process with traditional assignment structures and grading can be difficult.

It is essential to manage departmental or administrative expectations regarding staffing, as these courses may have different student to staff ratios. Stress the qualitative contribution that these courses might bring into existing degree program, department profile or the university engagement goals.



Tool 4

Embedding collaborative research in university curricula

Checklist

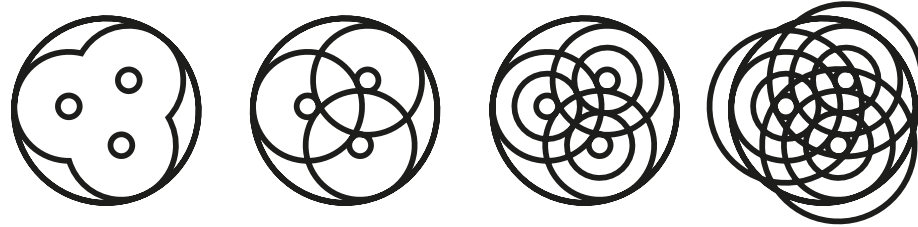
- Set clear expectations. When communicating the project to students and your university, clarify learning goals and acknowledge risks, and challenges. This ensures that participants in the module are aware of the required engaged participation, self-motivation and balance between team and independent work. Describe the course in terms of collaboration and co-creation, rather than a volunteering project. Clarify that in-class involvement of non-university partners is not only valuable but also indispensable for learning. To be respectful of everyone's time, communicate early what is feasible within the timeline of the semester regarding the research, learning and partnerships.
- Encourage a brief motivation letter from potential participants. This supports their commitment and confirms their understanding of the project. It can also help convenors to get to know participants' background or prior experiences with non-university collaborations.

Planning collaborations between university and non-university partners

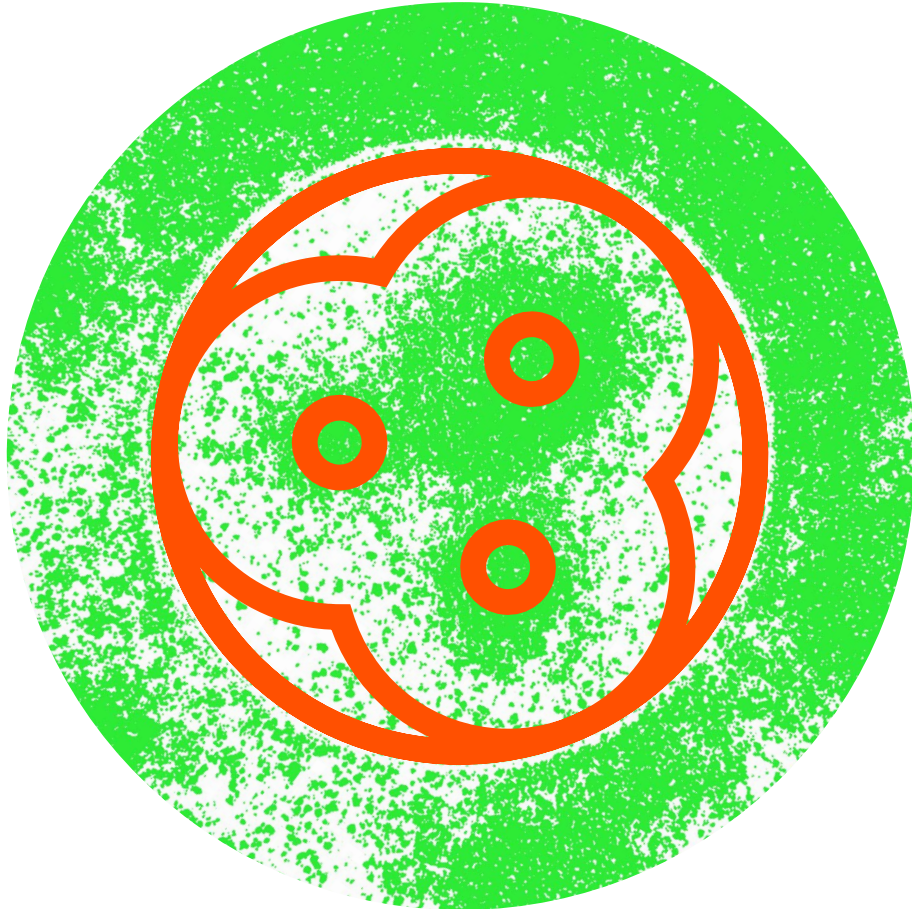
- Define clear learning objectives and align them with the assignments. Consider that collaboration itself needs to be learned. Design collaborative assignments with non-university partners. Consider if some assignments are exclusive to university participants or if this would reproduce divides amongst all partners involved.
- Think through how assignments and expected deliverables will shape the research results and partnership. For example, demanding a creative output that involves all participants will foster different kinds of collaboration, than asking for a written report that is just authored by the students. Consider that high expectations with regards to expected deliverables might induce stress and take away time needed to establish and sustain an inclusive working mode.

○ To not over-burden participants, differentiate what can be done before the course. For instance, preselecting research themes and predefining a catalog of methods that participants will be taught means that learning materials and literatures can be prepared in advance of the course, also easing the burden on convenors. Leave space for participants to take key research decisions on some matters perhaps selecting cases, methods or forms of output. For instance, formulating the research questions as a group can be a learning outcome and part of your pedagogy.

○ Opt for ungraded group assignments that are qualitatively assessed based on peer and partner feedback rather than convenors' evaluations. If grading is required, consider opting for a flat grade for all participants and stressing the significance of qualitative feedback. Offer instead a qualitative certificate or letter of participation (also for non-university partners), which more substantively describes the work participants did.



B Didactics of collaboration

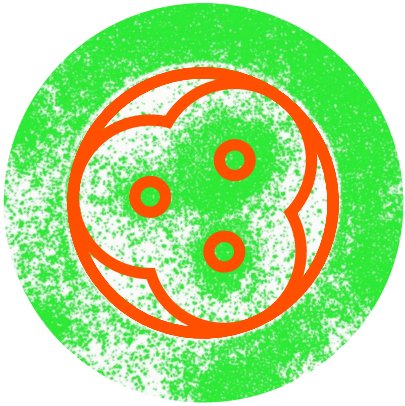


Tool 5

Taking and spending time together

Aim

Building a strong research team and enhancing interpersonal relations within and outside the classroom



Tool 5

Taking and spending time together

Challenges and considerations

A major challenge in collaborative research-based learning projects is finding the balance between different project goals (institutional, research, partnership). Individual participants and partners have differing positions and needs, and the funding [[Tool 1](#)] or university conditions [[Tool 4](#)] of the collaboration will likely constrain the work within tight timeframes. This neces-

sitates building interpersonal relationships and cultivating a shared understanding of the project goals, both of which are essential for meaningful collaboration and learning. Meeting the requirements set by the funding or university, producing research results and delivering socially relevant outcomes in a short period is demanding. In response to this difficulty, there is often a tendency to optimize schedules by overloading participants' work schedules and overly structuring workflows. Consequently, project participants may compromise a more inclusive discussion and negotiation of their goals, needs and interests [[Tool 4](#)].

Moreover, there is limited time for socializing and spontaneous team building, which have significant impacts on the quality of collaboration, inclusivity, trust [[Tool 2](#)] and participants' commitment to the project. Taking and spending time together outside the framework of the project is crucial for a more meaningful collaboration. These informal interactions have significant impacts on the quality of research and learning outcomes. Moreover, spending time together

promotes the joy of finding out who our partners are and may help to break down barriers of intercultural prejudice by humanizing participants rather than sorting them as part of pre-established groups (student, professor, partner).

For these reasons, it's imperative to plan dedicated space and time for interactions among all participants. Recognizing the formative value of socializing and discovering shared interests both within and beyond the classroom, this time should be considered as integral to the project. It should also be thoughtfully organized and compensated as time is not a resource available to all participants equally. Informal socializing can often become exclusive due to the practical nature of organizing. Taking a more top-down approach may help ensure all participants are provided enough time and space to get to know each other as individuals.

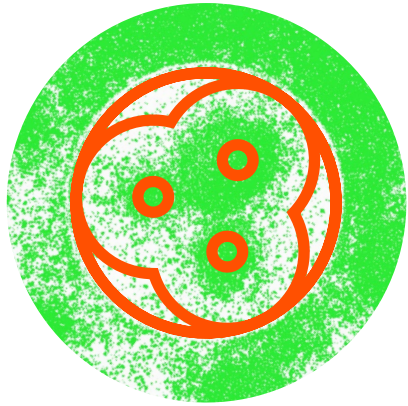


Tool 5

Taking and spending time together

Checklist

- Alongside the project timeline, schedule time to celebrate and spend more time together in key moments of the project (e.g. kick-off, midterm, last meeting). Also schedule free time in each meeting for socializing. Ensure participants have time to freely interact, co-decide and co-organize their group work (also without convenors' presence).
- Check for inclusivity. Consider time, space, atmosphere or types of activities that can support interactions [[Tool 3](#)]. Consider whether resources need to be provided like childcare, catering or transportation. Consider with catering whether different food and drink restrictions can be accounted for. Gendered dynamics often arise with social events and critically reflect on who is doing what, also in these informal settings (e.g., preparing and cleaning up).
- When possible, involve participants in the planning of events and activities. In this case, keep in mind that planning also requires extra resources for participants. Different research groups may each take a turn with this to ensure some distribution of social tasks.



Tool 5

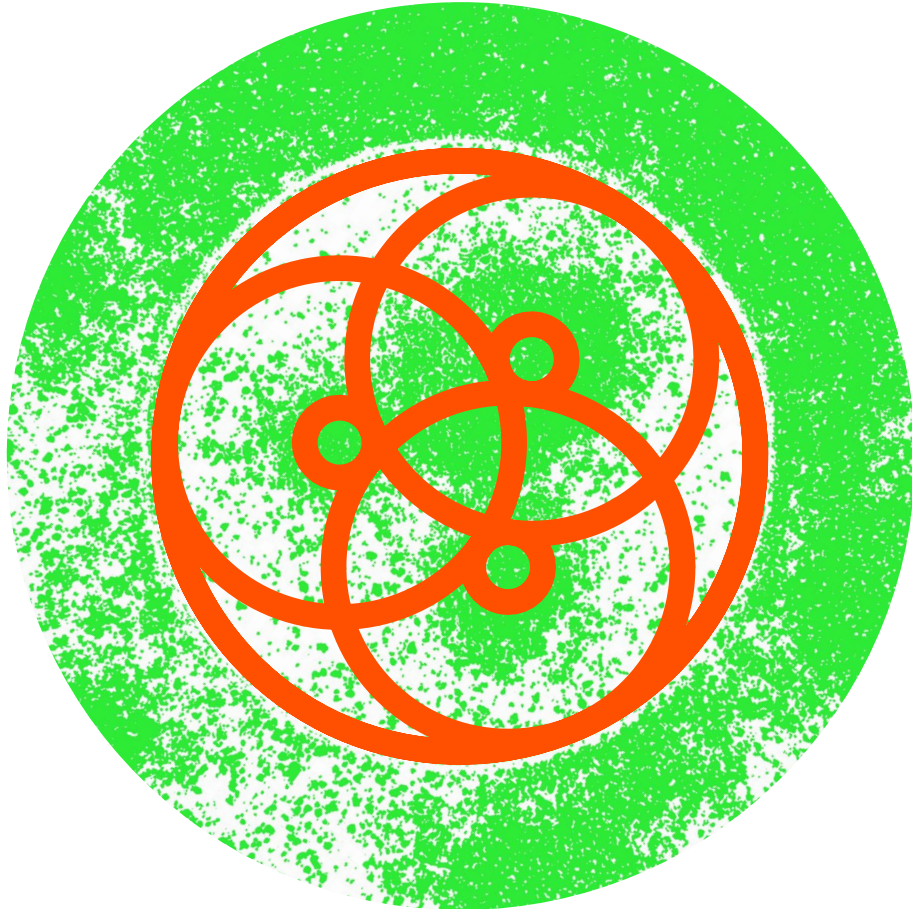
Taking and spending time together

Practice examples

Plan and encourage joint coffee and lunch breaks

To support spontaneous interactions between participants, consider providing infrastructure for coffee breaks during each session. Planning longer breaks is a precondition for developing a space for regular informal interactions. Moreover, you may consider offering some tea, coffee, cookies or fruits (e.g., if you have access to a kitchen, in the classroom or university cafeteria) [[Tool 3](#)]. This allows people to gather in the same space and engage in conversations. Budgeting for shared lunches at the end of all or selected sessions can be a useful way to value participants' time and also encourage them to spend more time together informally. This could range from an event of cooking and eating together outside the usual research setting to providing lunch bags from the university canteen. Sharing a meal or a drink is an act of care that promotes inclusivity, especially for quieter participants less accustomed to research settings. It can serve as a foundation for building

interpersonal relationships, potentially leading to long-term contacts or friendships. It also promotes joy and togetherness that break through cultural, social and other barriers and prejudices that might impede meaningful connection. Gathering around a table to share food can help break down social and institutional hierarchies and challenge the fixed roles that prevail in many teaching and research processes.

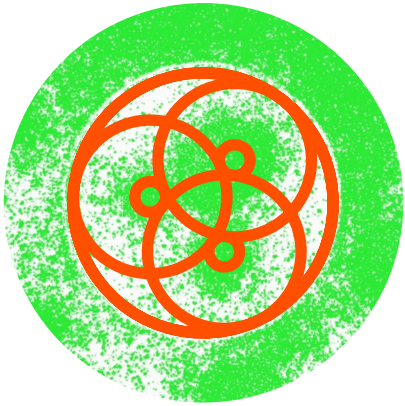


Tool 6

Shifting roles and shifting power

Aim

Overcoming prescribed roles of "researcher" and "research subject" and of the "educator" and the "learner"



Tool 6

Shifting roles and shifting power

Challenges and considerations

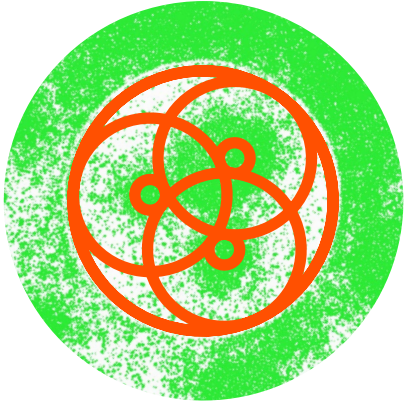
Questions of positionality and power between researchers and research subjects are central to qualitative social science research, particularly in fieldwork. In research-based learning collaborations, these issues become more complex due to additional classroom hierarchies. Researchers can also be research subjects. Non-university partners and students learn simultaneously

and reciprocally. Simultaneously, their collaboration is embedded in institutional structures and is guided and evaluated by a teaching team, which may be at times more actively involved in shaping the research. To support effective collaborative research, mapping out power asymmetries while reflecting on questions of positionality is crucial. Power and positionality have equally important impacts on pedagogical processes of learning, the research approach and results. Participants enter the collaboration with embodied knowledge about these roles. But the experience gained in the framework of your project can support participants in moving from performing fixed roles (e.g., student, partner, teacher) pre-given by the initial organization of the collaboration towards becoming co-researchers.

Practically, pedagogical methods and integrative formats that question these fixed roles help create more inclusive environments to achieve these stated goals. For instance, they can support participants in practicing how to reflect and openly discuss their thoughts, how to

share their perspectives but also how to be open to and listen to other people's truth and experience. It can be a means to learn how to give and receive feedback on the basis of care and solidarity rather than of competition. A precondition for such learnings is a safe space to interact [[Tool 3](#)] and a learning attitude that is not only focused on learning from others (taking) but also on helping others to learn (giving).

Instead of teaching what power relations exist, guide participants how to recognize and best address these hierarchies. This might include practicing empathy, acknowledging privilege, sharing vulnerability and care for others. As an educator you may need to highlight at times the ethical commitments and implications of their research, but this must also be a result also of their own work and reflections about the difficulties of shifting and changing roles in research and teaching.

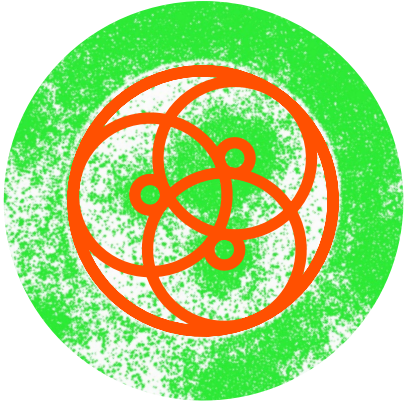


Tool 6

Shifting roles and shifting power

Checklist

- Plan practical exercises and group activities, instead of lecturing about theories on research or teaching roles and hierarchies. Don't overcomplicate tasks. Keep it simple to easily engage participants. Simply ask about their impressions, opinions and feelings in response to a research finding or another team member's perspective. Try to highlight the diversity of perspectives and their link to social positionalities or traditional research or classroom roles.
- Always work in mixed teams of students and partners. Design activities that enable participants to take on different roles. Take sufficient time for group work and collective reflection on learnings and outcomes at the end of an exercise or a session. Consider that speaking about each other's roles might be uncomfortable and require also anonymous formats for reflection.
- Ask participants to (individually or collectively) reflect and speak about their viewpoints, positionality and assumptions. Perhaps employ "tour de table" formats to ensure everyone is able to speak. The point is not only to identify differences, but also to identify threads that relate experiences and ideas with one another.
- As the convenor, take on different roles during these exercises. For instance, ask them to explain to you something or become part of the brainstorming session as a participant sharing your personal experiences and vulnerability. Help participants organize their arguments and avoid being engaged in correcting their work. Ask them instead to justify, explain their arguments and perspectives. Consider your positionality, involvement or distance during team activities. At times you may need to intervene or guide the discussion to ensure participation. Other times, you may need to observe or let participants discuss without you.



Tool 6

Shifting roles and shifting power

Practice examples

Speed dating to create a basis for interaction

During the initial group meetings, speed dating sessions can help break the ice, establish the first foundations for interaction among project participants and cultivate a sense of commonality. A speed dating session is comprised of a series of brief one-on-one conversations between participants. After discussing with one partner for several minutes, participants rotate to meet another. The key is an even number of participants and that everyone, including the educators, participates in speed dating. When using speed dating for team building, you may consider questions about participants' experiences and perspectives that include a subjective positioning such as asking about their favorite place in a city. Select questions that are feasible to discuss in two minutes (one minute per person). This approach can be particularly helpful for encouraging all participants, even the more quiet, to engage in discussions since ideally everyone will have spoken with each other once. By supporting direct interaction between

educators and learners it also helps in developing trust and easing classroom hierarchies. To organize a speed dating session, you need to arrange a setup that allows participants to quickly switch partners (e.g. two parallel lines of chairs facing each other perhaps spaced apart for noise). You also need to keep track of the time and announce when participants change partners. Finally, consider organizing a small coffee break so participants can continue their interactions.

Group exercises for collaborative learning

To become co-researchers, participants need to reflect on their individual positions, capabilities and needs. Additionally, they need to experience the practicalities of conducting research together. Along with other teaching materials (e.g., texts, lectures), group exercises can support didactics about research methods suitable for collaborative research. These activities enable educators to guide and structure a learning process which allows participants to practice

simplified research tasks and learn from one another. For instance, you may consider practice exercises that involve short interviews, walking together, observation and taking pictures as data collection for a research question, reading and discussing a small newspaper excerpt (200-500 words) or analyzing visual material relevant to their research. It is important to provide a clear and straightforward research task that can be completed within 30-40 minutes. Make sure that you include step-by-step instructions in written form and simple language. You may guide participants through the task and should be available to answer questions but try to keep a passive role overall.

Role-playing for transitioning to co-researchers

Along with practical experiences with research methods, it is crucial to move away from pre-defined roles among project participants such as the distinction between “researcher” and “research subject.” It is imperative to convey

to all participants that these roles are not fixed and to explain that they all are and can become co-researchers, irrespective of their different backgrounds and experiences. Role-playing is a valuable pedagogical approach that allows participants to experiment with and assume different roles and positions within the research process, to practice switching between the roles of researchers and research subjects. For example, you can plan a role-playing exercise where participants take turns interviewing each other and subsequently discuss their experiences in a group setting. It is crucial that all participants try all roles during the course of an exercise to become aware of power relations between researchers and research subjects, boundaries, possible discomforted moments and to feel what it means to be researched. Through a reflection on these experiences, participants can work together towards research protocols and procedures based on reciprocity and respect. Thus, role-playing demystifies the research procedure and provides all participants with the necessary knowledge and skills

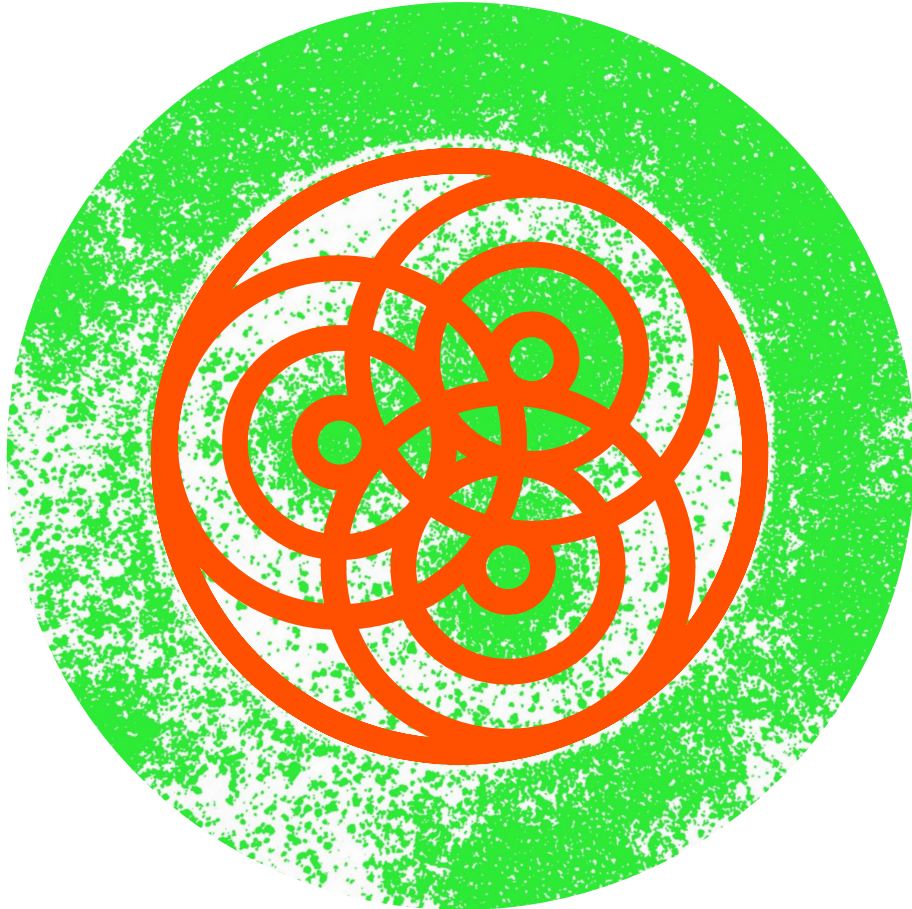
to ethically engage in collaborative research. Role-playing exercises seek to foster empathy, critical thinking and enrich communication skills. While involving a reflection on conversation dynamics, power and the experience of researching and being researched, these exercises bring ethical issues in research into the fore and make them tangible.

Peer feedback

Peer feedback [[Tool 13](#)] lies at the core of collaborative research. It can help challenge traditional notions and assumptions of “expertise” and address epistemic injustice. It seeks to promote constructive dialogue and support all participants to assume, on their own terms, roles as experts. Peer feedback aims at training everyone to openly express their thoughts and observations and encourages them to provide respectful and constructive support to their peers. Moreover, it supports learning how to acknowledge others’ contribution, effort and knowledge.

Learning how to give feedback is a difficult task. Some participants may feel shy or unqualified in providing feedback, as they may understand feedback in terms of a strict judgment or school grading. You need to provide participants with a template or an example of what good feedback looks like. For instance, the ways in which we as educators provide feedback can help participants to understand the meaning of the term. However, instead of a paternalistic approach to teaching feedback that resembles “corrections,” you need to place yourself within the learning community and give and demand feedback from participants. Whether you bring your feedback as an example or you provide participants with a template you need to show them why and how feedback has to be specific to an assignment, structured (e.g., strengths and weaknesses) but also kind or even propositional (e.g., to indicate what they could do to improve their work). During the project, you may consider organizing frequent feedback sessions, targeting different objectives and tasks of the project.

For instance, if you decide to work in smaller groups, you may consider organizing brief sessions where each team shares their research progress, challenges and questions with another team. They take turns receiving and giving feedback to each other. Peer feedback brings an additional value regarding collaboration, as it impedes fragmentation of knowledge and expertise in a project with multiple groups, allowing for knowledge transfer between different working groups. In other cases, you may consider involving non-university partners and partner organizations as both peers and experts in the field. For instance, organize exchange sessions where groups present their work and non-university partners or non-university participants provide feedback on research findings, or on the impact or the implications of making public certain outputs. This process is fundamental for ensuring partners’ right to self-representation in the research (if the research is about them), and it acknowledges and enables them to assume their role as experts.



Tool 7

Communicating and sharing knowledge within the team

Aim

Building infrastructures for knowledge sharing that are accessible and secure for all participants directly or indirectly involved in the project



Tool 7

Communicating and sharing knowledge within the team

Challenges and considerations

Collaborations between students and non-university partners frequently involve the need to overcome entrenched channels of sharing knowledge at the university. These infrastructural challenges combine technical, managerial as well as ethical aspects. Non-university partners lack access to university servers, resources and learning platforms, which are more secure than

commercial platforms. Sharing basic information like practical information, syllabus, texts, research documents and files becomes more difficult without this access.

When collaborations involve partners with limited access to IT infrastructures or who do not frequently work with computers, this can also imply that commercial or open-source platforms for collaboration and knowledge sharing (such as Google or Pads) cannot be equally used by all participants. Some participants may not use emails and others may not want to communicate through corporate social media platforms such as WhatsApp or Instagram. Limited access to IT hardware or software may mean limited access to important information, team documents or limit their involvement in teamwork. For instance, reading Word documents or Excel sheets through a smartphone may be possible even without Microsoft software, however this might not function for data elaboration and editing. Thus, the choice of shared infrastructures must jointly consider access to information, knowledge, communication and the nature of

research data produced as a cornerstone for the possibility to do collaborative work.

Moreover, knowledge infrastructures need to be set up and maintained, which requires a distribution of tasks among participants. In this context, consider the risks of data theft when sensitive data is stored or shared. Particularly when working with vulnerable groups this data includes sensitive information, such as phone numbers, that participants may need to provide in taking part in knowledge sharing in the first place. Together these challenges require careful balancing between enabling access to information for all participants and the needs for safe and pragmatic solutions.

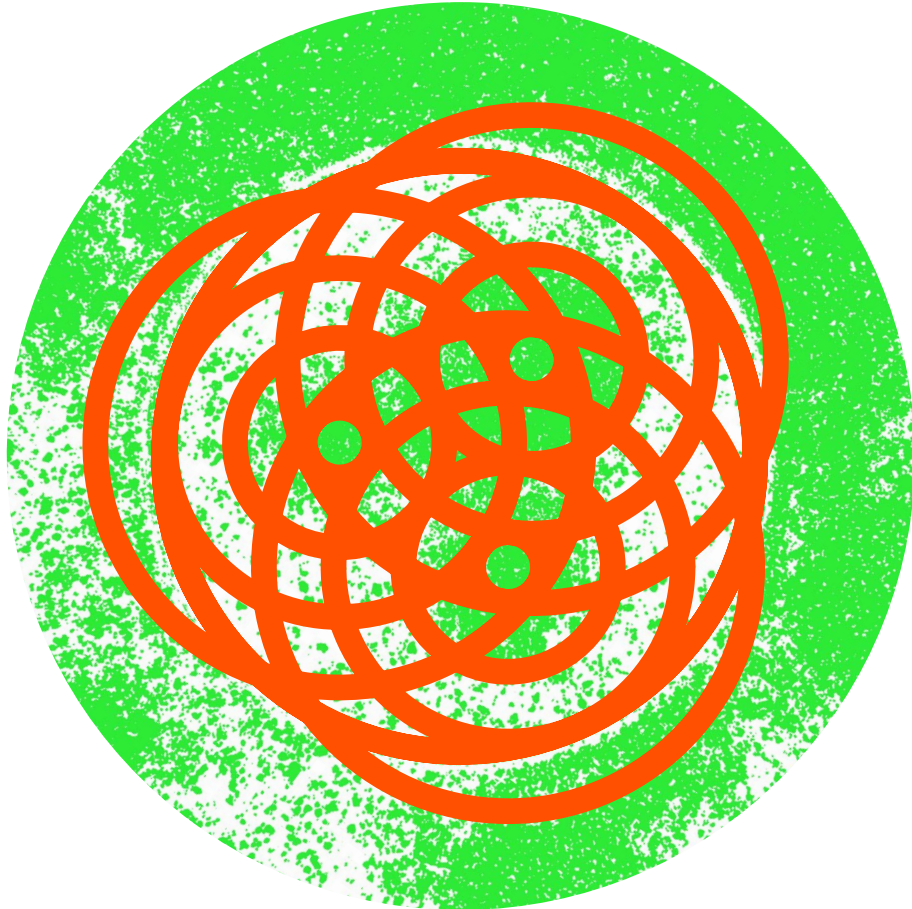


Tool 7

Communicating and sharing knowledge within the team

Checklist

- Introduce all participants to the challenges of handling sensitive data, especially when working with vulnerable groups.
- Decide jointly with all partners which personal data (names, phone numbers, emails) they are willing to share to communicate with the convenors and in their research teams. Ideally, this would be the same system for all participants. Dedicate time to decide on communication channels, the form of information sharing (e.g., all documents might need to be shared as a PDF for simplicity) and spend time to familiarize everyone to the platforms where they will share and store larger research files and data. Alongside this, select software or analog formats for working documents that are accessible for everyone.
- Ensure that one team member oversees managing and maintaining the chosen data storage platforms and communication channels. Make sure this task is adequately acknowledged. If no single infrastructure (of communication or data storage) is accessible for all participants, this person could update stored data and function as an intermediary between different platforms.

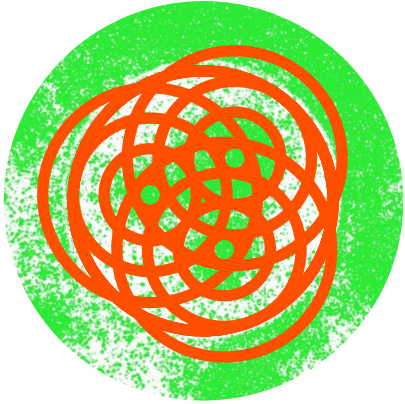


Tool 8

Acknowledging and integrating diverse knowledges

Aim

Building a diverse team of co-researchers that recognizes the value and credibility of a variety of experiences and knowledges



Tool 8

Acknowledging and integrating diverse knowledges

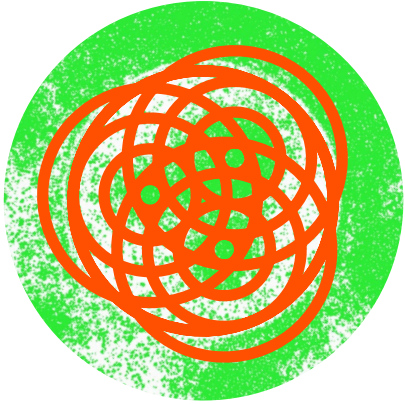
Challenges and considerations

Integrating different experiences and knowledges into scientific research is a central aim of collaborative research-based learning projects. However, bringing “traditional” understandings of academic knowledge, as defined by institutionalized disciplines and university curricula, in dialogue with the valuable, context-specific

knowledge of stakeholders can be challenging. Thus, it is important to address questions of epistemic injustice when incorporating real-world knowledge into formalized university settings.

For both students unfamiliar with the topic of research, the field work, the methods, as well as partners unacquainted with academic norms and the language of scientific inquiry, this might be a challenging exchange. Yet, it can produce important research findings and learning-effects. For instance, it can demystify to both parties the practicalities of doing research, or can lead teams to identify more targeted and critical research questions that better link to social realities rather than being solely the result of a literature review. Yet, to integrate practical, embodied and ‘tacit’ knowledge, you might also need to further illustrate with examples what this knowledge looks like and the value of this knowledge for different groups, in normative problem-solving applications and in the context of epistemic justice.

Pedagogical methods can support participants in recognizing and appreciating the diversity of knowledge, while promoting their integration with academic perspectives and formal requirements throughout the collaboration. Remember that often claims to knowledge (e.g., ‘I know that’) or categorizations of knowledge (e.g., practical vs. theoretical), may obscure the true depth of our understanding of the subject. Thus, in order to be open to shift perspectives you and participants alike may begin this learning experience with modesty, curiosity, recognizing and (openly stating) our own limitations and partial knowledge on aspects of the project.

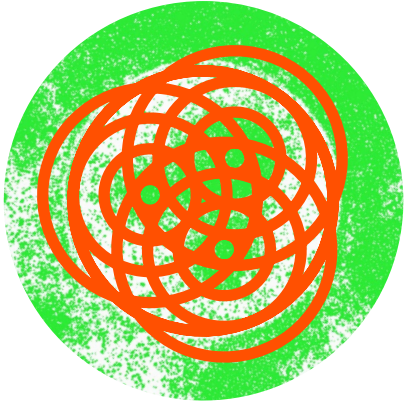


Tool 8

Acknowledging and integrating diverse knowledges

Checklist

- Allow for the possibility of everyone's ignorance and encourage everyone to share their knowledge in order to fully reap the rewards of a partnership.
- Provide participants with an open definition of knowledge diversity and expertise. Consider that participants may need time and guidance in thinking across and beyond the divide between "academic" and "non-academic" knowledge. Use examples, anecdotes and stories about how known "scientific" concepts connect to something that researchers observed and experienced in the real world or invite people that do research outside the university and who can inspire participants.
- Plan team-building activities that identify existing skills and knowledge, so participants can easily associate with the topic and feel confident about their contribution to the team.



Tool 8

Acknowledging and integrating diverse knowledges

Practice examples

Mapping group resources

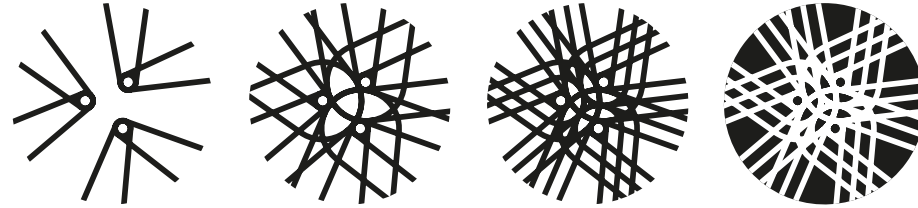
To build a team of co-researchers, it is crucial to identify the different kinds of resources already present within collaborations. After agreeing on the broad focus of your research, you may consider moderating one or more brainstorming sessions to document the existing skills and knowledge that team-members bring to the project, or the ones that need yet to be developed. Mapping these resources on a physical or digital flipchart or whiteboard serves both pedagogical and team-building goals. It helps visualize what “diverse knowledge” means and how different forms of knowledge can be complementary. It also highlights the significant knowledge and overall contributions that participants bring to the project. Moreover, it builds team confidence as it demonstrates how many different resources are already available and can be mobilized early on. This can promote a sense of belonging in a team and may further support collaboration and exchange. By collectively asserting their resources, participants define their connection

to the project and the team and indicate their potential interests and responsibilities in the research project.

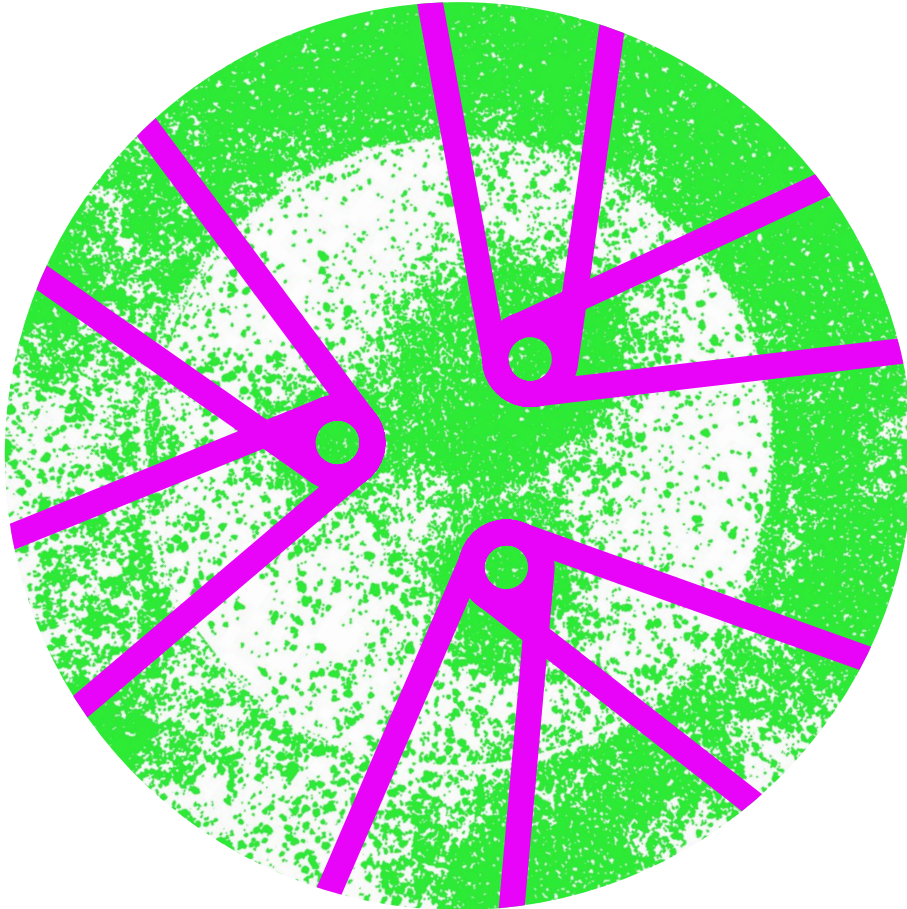
To avoid reinforcing dominant notions of expertise and developing research procedures that non-university partners may not relate to, begin with a team-building session centered only on existing team resources. The goal here is to create a space where each participant can share their thoughts and ideas. Try to keep the definition of the term “resources” open in order to encourage participants to speak. For instance, explain that resources include personal experiences, stories and anecdotes, connections to relevant associations, groups, individuals as well as practical insights, readings and visual materials. This practice is especially important as usually university students may lack considerable knowledge about the research topic. In a second brainstorming session, you may consider inviting participants to reflect on what other resources may be needed for their project. For instance, what do participants need to learn to do this research and what resources

may help them develop their new learning goals further. Having assessed and shared existing knowledge by the end of both sessions, participants will know each other better and will have identified their shared interests and next steps.

Keep in mind that creating space and time for hosting these sessions matters. For instance, you need to give participants enough time to reflect, elaborate and possibly note down their thoughts. When language differences exist amongst participants or spoken contributions are difficult, written post-its could support them in sharing their thoughts. Moreover, you may need to reconfigure the classroom setting to allow all participants to have visual connection to the mapping board. Your role and involvement shape the learnings during this activity, so consider in advance whether you contribute to the brainstorming as part of the team or whether you intervene only in moments of stuckness.



C Practicalities of doing collaborative research

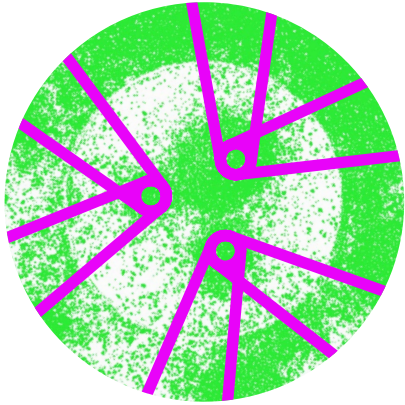


Tool 9

Defining research questions

Aim

Building consensus about
research questions and goals



Tool 9

Defining research questions

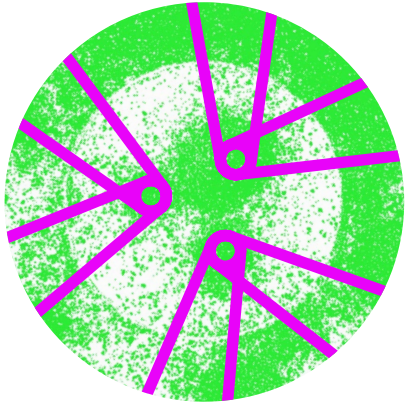
Challenges and considerations

While research questions are a key guiding tool for empirical work, knowledge about their purpose and practical experience of how to pose these questions tends to be limited. Non-university partners are often unfamiliar with the idea of research questions, while students, particularly at the master's level, are expected to have some prior insights into key elements of research design. However, applying this knowledge into

research practice is frequently a challenge for all participants involved. While it is clearly impossible to bring everyone on the same knowledge base regarding research methodologies in general, or research questions in particular, agreement on these is a cornerstone of functioning research collaborations as they are an important orientation aid for the further advancement of the research project.

Considering that academic research about the project's theme is likely to be unfamiliar to students and partners, it will be difficult for them (also given the time constraints) to identify gaps in scholarship and formulate empirically interesting and novel research questions. Moreover, it is likely that participants might not be interested or see value in the same questions, making it necessary to reconcile and negotiate conflicting ideas. Also consider that the formulation of research questions is a result of training. Non-university partners may have pertinent questions and hold clearer understandings of what is needed or experienced in the field, but could encounter challenges both in understand-

ing their significance for research and in framing them as research questions. Research questions require a degree of translation between different forms of knowledge, therefore, and a critical reflection about the assumed values embedded in this translation. For instance, academic research questions often presume novelty and discovery, or addressing gaps in scholarship. Consider the value of research questions that are perhaps also not new (but asked by a new team of researchers) or research questions less concerned with the advancement of a research field and more concerned with the process or methods.

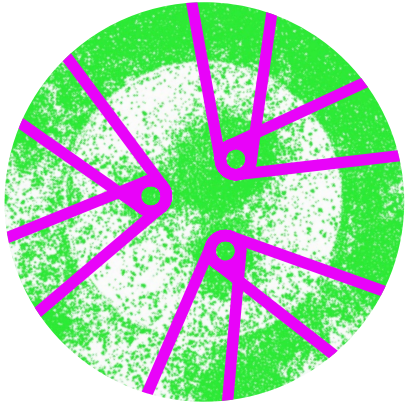


Tool 9

Defining research questions

Checklist

- Provide input on the purpose of a research question and allow time for participants to discuss this input in relation to their research topic. Topics should be open enough that participants' expertise can lead in formulating the research question. This requires navigating a fine balance between preset and open elements of the course. Bring in examples of relevant, well-structured and doable research questions.
- Schedule enough time to establish a shared knowledge base in the first weeks of the project that allows participants to engage in specifying their focus and formulating research questions. Work with participants in identifying connections between research observations, research goals and research questions and between research questions and methods.
- The research question can be used for inclusive dialogue and knowledge valuation. Use research questions as a boundary object that allows all participants to express their interests in the project. Consider the key importance of the practical or first-hand experience that non-university participants bring, which enriches understandings about what is needed or experienced in the field. This is a key asset in defining research questions that addresses (among others) limitations of prior knowledge about the subject.



Tool 9

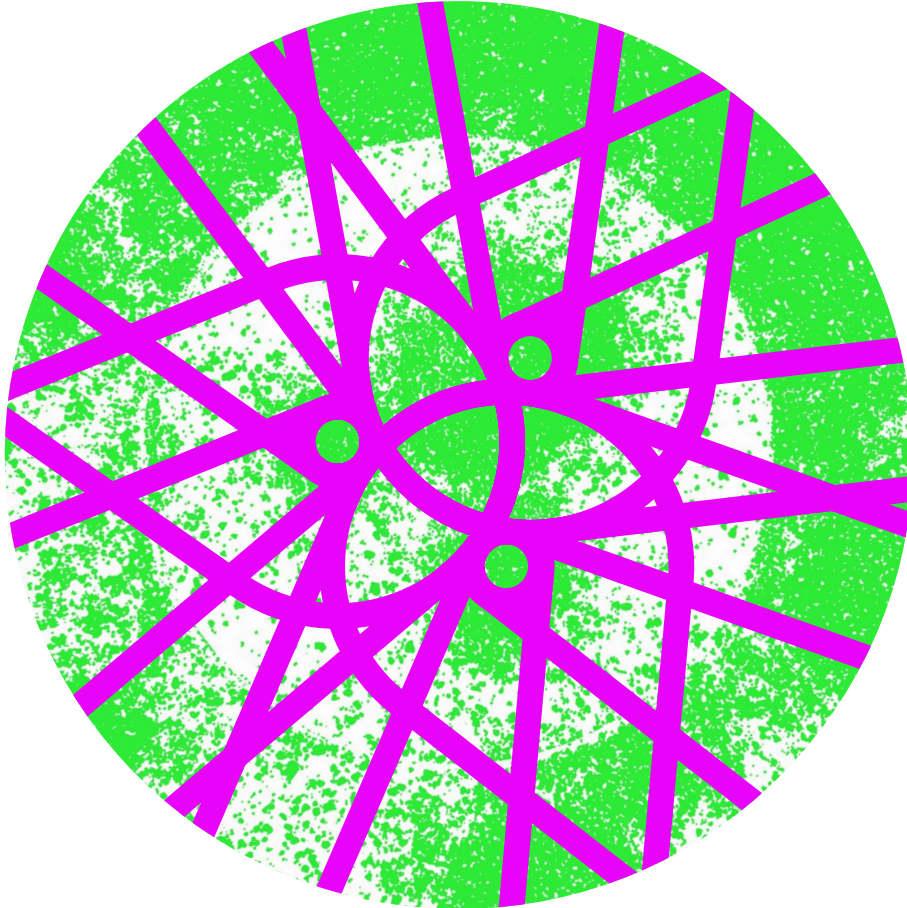
Defining research questions

Practice examples

Creative visual thinking

Formats that allow for storytelling or creative visual thinking may be more fruitful in establishing research questions than those that build on linear argumentation. For instance, working with visual collages can help bridge different epistemologies and allow participants to develop and communicate their interests. You need to plan this exercise as a well-structured workshop. You may need more time than you think. Encourage everyone to bring visual material such as postcards or magazine images that they associate with the research topic or a specific question. This material can serve as an entry point to express and navigate different research interests. The spatial setting of this exchange is important. Set up tables in a way that allows small groups of 3-5 participants to explain what they see in the visual material and why they selected it. Ask a moderator to extract common themes from the discussion. These themes can be presented to and discussed with the bigger group that can provide feedback on these ideas

or extend them. Especially when participants are hesitant to speak in front of a bigger group, this visual material organized in themes can also be exhibited. Sticky notes can be a means to provide written comments on the exhibition, while stickers can allow the group to show interest or prioritize themes. At a later stage, participants can be introduced to how to build zines or collages from working through and commenting on this material.

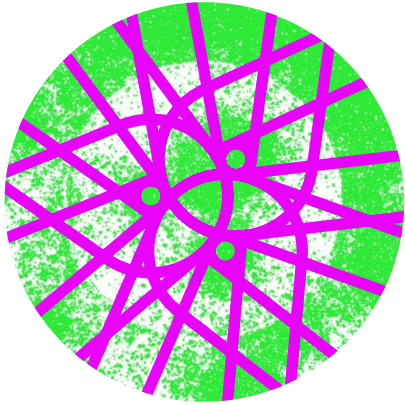


Tool 10

Collecting data together

Aim

Enabling all participants to actively
contribute to knowledge production
through producing or working with data



Tool 10

Collecting data together

Challenges and considerations

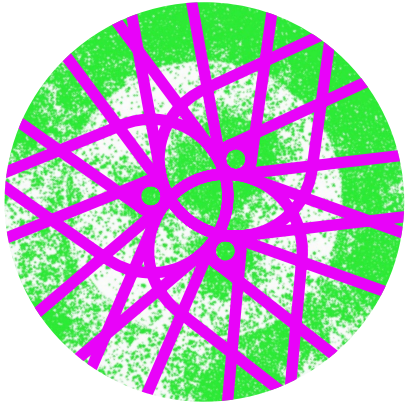
Subverting conventional roles of researcher and research subject and facilitating an equitable working relationship on more even footing within teams is challenging [[Tool 6](#)]. Involving all participants equally in the research requires using research methods that build on the experience and team resources of all concerned. Participants are subject to unequal exposure and experiences in collaborative research projects.

For instance, university students must meet academic requirements in order to enroll in a Masters-level seminar whereas the participation of non-university partners depends largely on the criteria established by the initiators of such a project or in the collaboration. This means that participants may not have an equal amount of time and flexibility for data collection, analysis and interpretation, which can all be demanding and time-consuming tasks and may require working during specific hours. For instance, participants with work or care obligations may be restricted from data collection or team meetings scheduled at certain times.

Language barriers can impede equal participation in the production or analysis of data. Participants may not be fluent in the language of research and data. Moreover, they may face difficulties with academic jargon, so groups need to discuss and agree to key terms. While collaborators' "insider knowledge" of the research topics is one of the main benefits of collaborative research projects, it can also be an impediment to equal engagement in knowledge

production. For example, insider experts may inadvertently slip into the role of "data subjects" who provide crucial information, but remain excluded from analysis and interpretation.

Lastly, doing collaborative research by using different methods tends to be open-ended and experimental, compelling participants to navigate unfamiliar research terrains. For instance, using visual methods (drawings, diagrams) to produce knowledge can be equalizing, because one does not have to rely on verbal expression or mastery of a spoken language. At the same time, it can be intimidating for those who are unfamiliar with visual methods or with the language of visuals in general. To accommodate this and to generate a wider range of data, consider the feasibility of employing mixed methods.

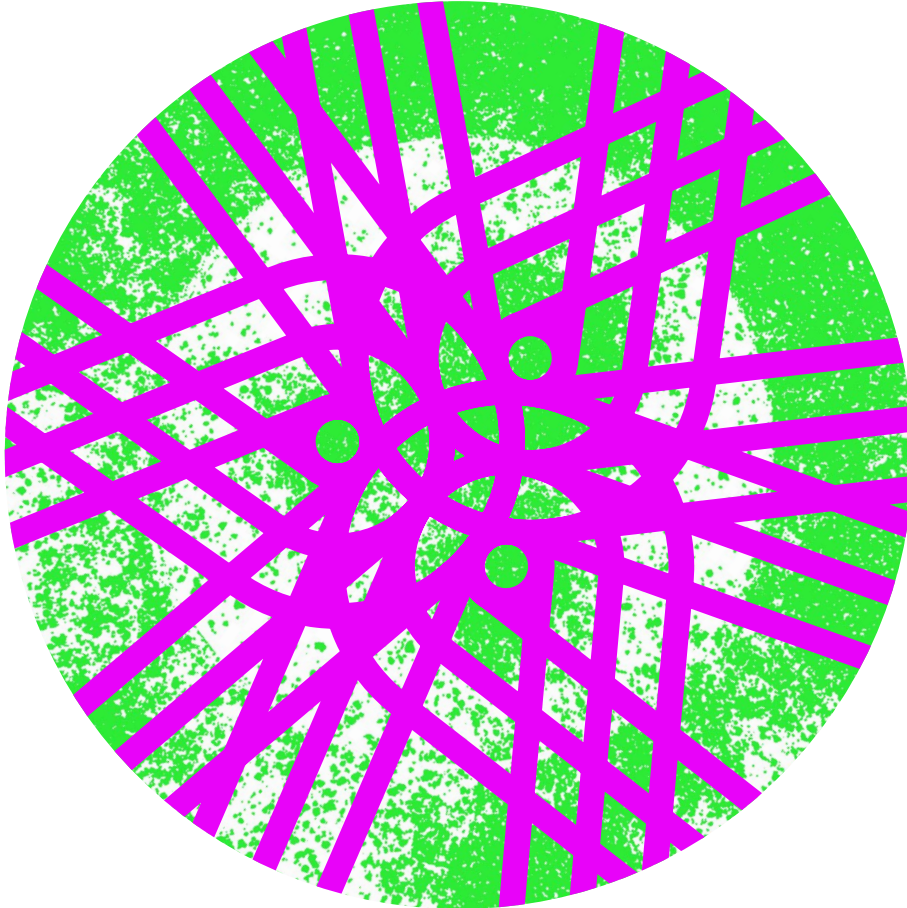


Tool 10

Collecting data together

Checklist

- Ensure equal access to literature and information. Provide some background on the research methods, examples of case studies or other research projects working with the kind of data being collected. Discuss with participants the practicalities of each method for their research question and ensure a shared understanding of how to proceed.
- Build mixed teams regarding prior knowledge of methods and of different kinds of data, as well as previous experiences and insights. For instance, consider partnering interviewers, coupling a participant trained in this method with an 'insider' in the empirical field. When working in teams, consider the distribution of research tasks between non-university partners and students. Consider equity in terms of both the kind of tasks as well as the time required.
- Practice and reflection within teams. Encourage everyone to practice data collection methods, even if not everyone will want or be able to equally participate in the actual research. Practice is very helpful to prepare and refine methodologies, to identify the feasibility of methods in terms of required materials and conditions, as well as facilitating a shared group understanding of the research process. Practice sessions [[Tool 6: Practice examples](#)] concretize the preparation by identifying additional needed organization or resources (e.g., a quiet and accessible space for an interview, microphones or other recording equipment)
- Review and discuss the nature of the data and methodological issues of access, sample or selection biases, ethical concerns and consider necessary adjustments.

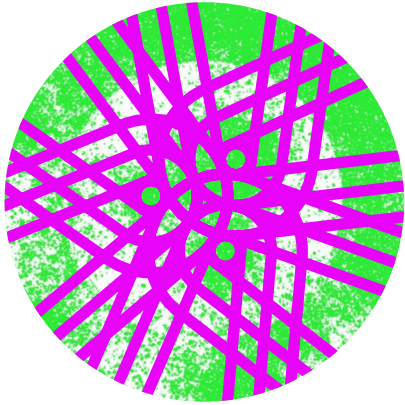


Tool 11

Analyzing data together

Aim

Interpreting the meaning of data
and answering the research question
from multiple standpoints



Tool 11

Analyzing data together

Challenges and considerations

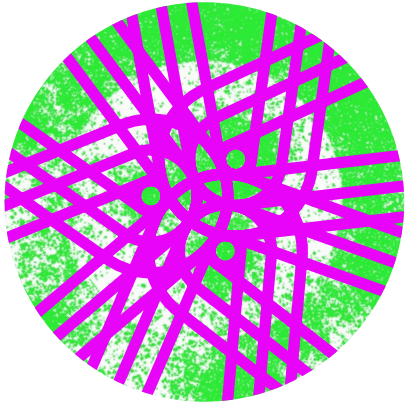
In collaborative research projects, the interpretation of research findings can be demanding. Difficulties can stem from the complexity of data, the participants' level of engagement in data collection and prior phases of the project or practical knowledge of analysis methods. Interpretation is a heuristic process and requires establishing a common frame of understanding about the data and observation. The research

questions can provide a common framework of understanding, yet analyzing the data requires a stabilization of meanings among co-researchers. Time for exchange and systematization of these observations is essential, especially if labor was divided within a team during the data-collection phase. Plan enough time in advance [[Tool 5](#)].

Analysis aims to answer the research question and is necessarily reductive in terms of complexity. At the same time, it is frequently challenging for participants and students who are unfamiliar with and untrained in interpreting data to unveil contradictions and nuances in or between datasets. While there might not be enough time to train participants in methods of analyzing data, they should be made aware of challenges in dissolving all contradictions within their data. Consider how to implement nuance within the results that allows for multiple interpretations and points at contradictions.

In the interpretative work, be careful about falling into traps of solipsism whereby only “insiders” can offer the true analysis. It

might be strategic to actively privilege certain voices, but it should be done in ways that do not silence discussions, for instance by establishing discussion rules in advance. Similarly, be careful about falling into translational power dynamics in non-university partners must translate their experience to be understandable or palatable for university educators or students. Instead, analysis can create a space for multiple translations by different participants to different audiences.

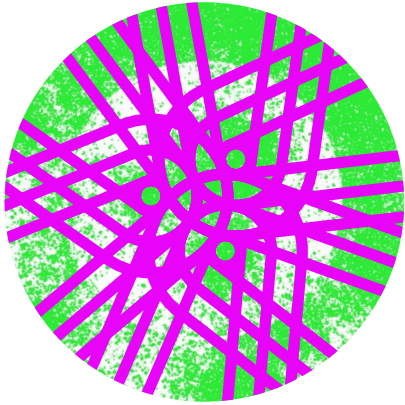


Tool 11

Analyzing data together

Checklist

- The aim is to learn how to describe, structure and combine data to produce new knowledge, a story and/or an argument. Keep it simple and manage your and the participants' expectations.
- Data never speaks for itself: Explain the need and purpose of analysis and interpretation and how these steps are necessary for making sense of findings and finalizing the project. Discuss and provide some guidance about different methods of interpretation, explain that there is no 'right' way to do this, that it is possible to challenge dominant assumptions about scientific analysis and that creative, e.g., visual or story-based interpretations do not lessen the results, but might even be more appropriate in some cases.
- Plan enough time for the analysis, do not underestimate the time and effort needed and the frictions that might arise while discussing the analysis and interpretation of the data. Discussing and building consensus on how to understand the results shows how analysis is an equally important part of the collaboration.
- Consider the position and integration of non-university partners during analysis and reflect on their contribution. Encourage participants to experiment with explaining findings in simple words to people that know their research.
- Avoid uncritically using complex theoretical interpretative frameworks that would require more learning, more time and may inhibit collaboration. Avoid additional software to organize the analysis (e.g., Atlas, Maxqda). They require prior knowledge and skills or more time for learning the software.



Tool 11

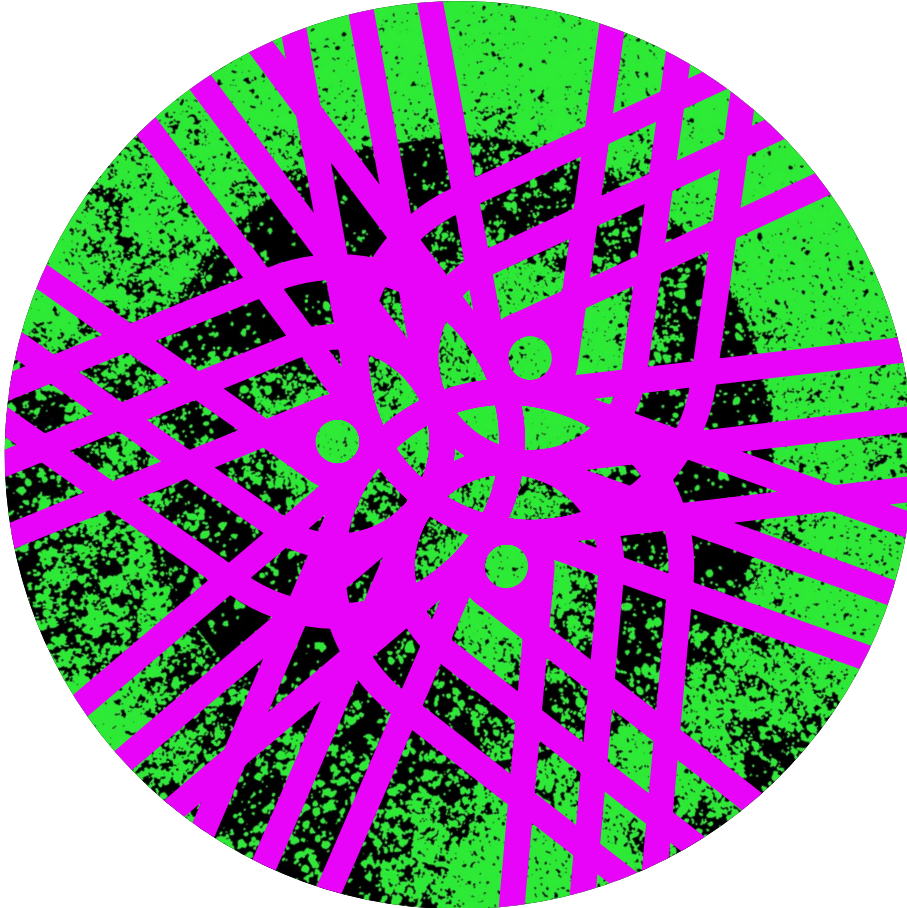
Analyzing data together

Practice examples

Practice analysis techniques in class

Analysis techniques such as coding can be a useful way to make sense of qualitative data. Consider, however, that participants need to be introduced and understand in practice how this technique works. Handbooks offer useful support, but further discussion in class is beneficial for all participants. For instance, to ensure a shared understanding of terms and patterns you need to discuss these interpretations. Asking participants to explain the connection between codes or whether a combination of codes point to a broader theme is a useful technique to help participants agree on some key findings. Narrative and story-based interpretations can be an alternative to coding, which are based on the subjective views and interpretation of specific researchers. In narrating or explaining their observations and findings in their own words, there is an interpretation rooted in the participants'

positionality, experiences and partial knowledge. In both cases, the educators' role is to guide these discussions by helping participants to strengthen their argumentation and structure.

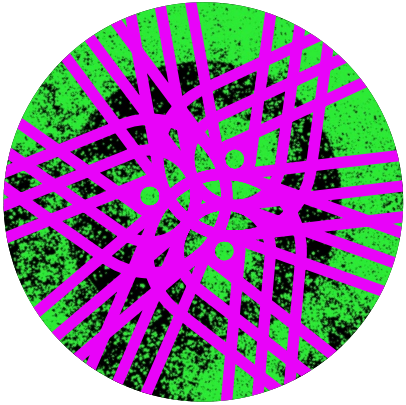


Tool 12

Creatively disseminating research results

Aim

Ensuring that the research makes a broader impact by communicating the project and findings to targeted audiences



Tool 12

Creatively disseminating research results

Challenges and considerations

The dissemination of research findings to stakeholders, interest groups and the broader public is an element of collaborative research-based learning projects. In presenting research findings, however, various forms of underrepresentation may occur. The impact of different voices depends on what and how these voices are presented and to what kind of audience

they are speaking. Who is presenting research findings to the broader public and in what kinds of forums or formats? Who speaks on behalf of “research subjects” and why?

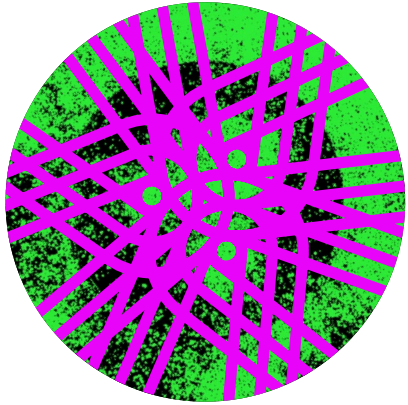
Moreover, dissemination implies embedding the results within broader debates and frameworks, for which some adaptation may be necessary. Consider public discourse, media landscapes as well as academic research. Within these fields, certain voices have been systematically underrepresented for a variety of reasons. Against this background, the communication of outputs may consider which voices should be highlighted.

Research findings include sensitive information that once public and available to anyone can harm interests, social groups or specific individuals involved in the project. For instance, a map of informal activities may be used to support regressive political views, to mobilize law enforcement interventions or incite violence against marginalized or vulnerable people using these mapped spaces. Beyond introducing participants to basic research ethics covering

issues of anonymity and confidentiality, you must make everyone aware of these dangers and risks.

Moreover, the choice of one outlet or medium over another may enhance societal impact beyond academia. Be aware this choice could also reproduce structures of injustice. You may need to collectively reflect on the outputs’ form and content and how the research results are framed. Proactively including non-university partners in such discussions and decisions can avoid reproducing mis- and under-representation of certain voices or issues.

Lastly, the short life cycle of projects might jeopardize the long-term impact of the outputs the sustained memory of collaboration and the legacy of the relationships with partners [[Disclaimer](#)]. What is the impact that the project seeks to make during and after the end of the project? How can this be achieved, particularly once the research outcomes become public?

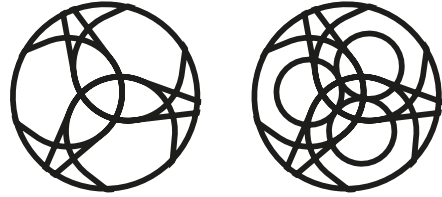


Tool 12

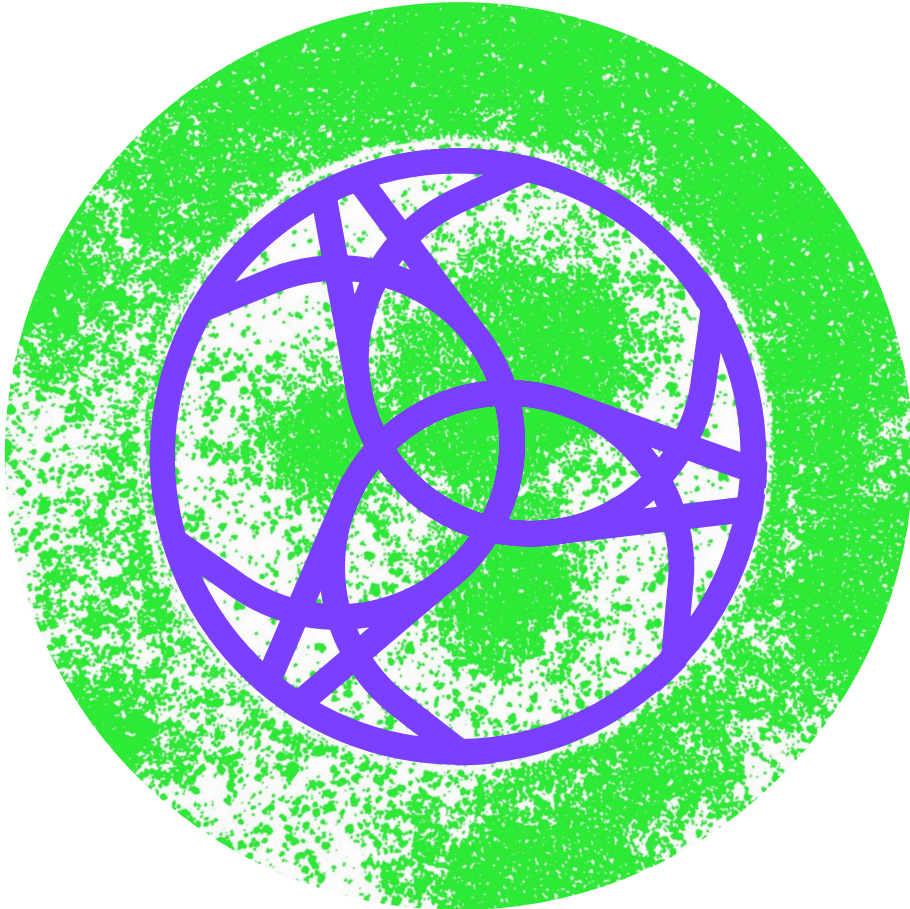
Creatively disseminating research results

Checklist

- Teamwork, open discussion and participatory decision making can help ensure participants' ethical commitments. Discuss the potential political and social impact of the research findings as a group. Ask participants to reflect on the risks involved and how different communication strategies and formats help to avoid these hurdles.
- Consider audience. Bring examples about how certain media shape messages' levels of abstraction or detail. For whom is an image more impactful and for whom is statistical data vital for understanding the research results? Develop communication strategies that enable engaging with more than one audience through time. Invite stakeholders for an event when results are discussed, or ask them for feedback in some form of media publication of your results.
- Support participants to develop their communication strategy and timing. Discuss the message, the target audiences and stakeholders, the media to reach them, the advantages and disadvantages of each format (e.g., magazine article, podcast, poster). Remember demographics, spaces or sociocultural contexts, linked to different digital or other media, matters. Timing also matters and consider the dissemination in stages: Who are the actors you need to interact first before reaching broader publics?
- To bring matters of misrepresentation into the discussion, consider issues of positionality and representation but also avoid reproducing dichotomous categorizations of "students" and "non-university partners."
- Archiving is key to fostering institutional memory. Document the context, the process of collaboration and its evolution, rather than focusing only on fancy outputs.



D Evaluation considerations



Tool 13

Defining the foci of evaluation

Aim

Defining an evaluation framework that fits the project's values and goals



Tool 13

Defining the foci of evaluation

Challenges and considerations

The experimental nature, diverse motivations and project goals and the integration non-university participants into institutionally-defined teaching processes pose many challenges for the evaluation of your project. The ways in which one evaluates the effectiveness or multi-directionality of learning outcomes, or the fairness of terms of collaboration, depend on

projects' goals and values. Some of which are agreed in advance, others developed during the project.

Due to this complexity, you will need to evaluate different aspects of the project at different stages. Keep in mind that evaluation does not need to happen in top-down ways (e.g., only by educators) at the end of a project, focused on tangible outputs. Instead, it might be useful to consider evaluation as the tracking of learning and garnering feedback. In this way, the task of evaluation is shared by all participants, enabling you to adjust and improve the project throughout.

As part of a university curriculum [[Tool 4](#)], this project may be evaluated as other courses. Yet, standardized course evaluation surveys focus on the educator and may not be able to capture the complexity of the project, even if adjusted. Besides the assessment of their own learning or the didactics, participants need to evaluate the collaboration and whether broader project goals were met. Moreover, university evaluations may not be equally accessible to all

participants of the project, particularly to the ones not affiliated with your institution.

In defining an evaluation framework, issues of positionality and bias are key. In collaborative research-based teaching projects, the convenors take on multiple roles. You may simultaneously be principal investigator, responsible for the distribution of funds, project manager, educator, learner, stakeholder and participant in the research. These engagements make the evaluation challenging. On the one hand, you need to be involved in evaluating the project outputs – depending on the shared goals you determined with your partners. On the other hand, you cannot be directly involved in the evaluation of your own didactics. To further support shifting roles [[Tool 6](#)], within the project, you need to evaluate and be evaluated by all participants involved, for different aspects of the project and through different means that may range from informal feedback to anonymous surveys.



Tool 13

Defining the foci of evaluation

Checklist

- Evaluation is all about values and accountability. Define the goals and expected results of a project in advance. Discuss them with your partners and refine them over the course of the project. On that basis, you can determine who is going to evaluate what and a preliminary evaluation framework.
- Consider the university context of the project and the limitations of the available evaluation systems within your institution. How can you respond to institutional requirements without compromising your project's values?
- Ensure your evaluation is feasible, meets project goals and includes all participants and distributes power among them. Enable all participants to participate in the evaluation on equal terms. Weight equally their evaluations. All participants have valuable knowledge in evaluating certain aspects of the project.
- In order to allow for self-reflection, consider your own positionality and engagement in the project and critically reflect on your involvement in defining the terms of evaluation or the evaluation procedures. Ask colleagues or non-university partners to give feedback on this issue.



Tool 13

Defining the foci of evaluation

Practice examples

Foci of evaluation

Irrespective of the specific values, principles and ethics that guide your project and partnership, the foci of the evaluation usually concern the collaboration itself, the didactics, the learning, all situated within certain institutional, geographical and social contexts.

Within these projects, collaboration takes place on multiple levels. It includes collaborations between your institution and the non-university partners, between members of the teaching team and among diverse project participants (e.g., university students, institutions, non-university partner organizations and individuals). These relationships need to be assessed. For instance, it is crucial for both the progress and the outputs of this project to track how these collaborations function, documenting the power dynamics within. This tracking is useful for understanding the extent to which these interactions shift traditional teaching and research roles or reproduce extractive relations.

Collaborative research-based teaching projects also involve pedagogical goals and challenges. These require moving beyond teaching formats such as lectures or seminars and conventional assignments to experiment with didactics. These new didactic methods need to be thoroughly thought of in advance, documented and evaluated based on their practical value for reaching teaching, learning or collaboration goals. For instance, you may need to assess which formats helped participants put project values into practice [[Tool 7](#) / [Tool 9](#)] or which activities provided participants the necessary skills to do their research. Evaluating learning and its long-term effects is challenging. In your evaluation framework, you may consider assessing the content of learning or the more immediate impact of collaboration with non-university partners on learning and research. More broadly, it may be useful to document how this experience shaped participants' worldviews beyond the classroom.

Including context in the evaluation is nec-

essary. Institutional settings shape the level of engagement with non-university partners, the resources, the spaces, the didactic formats, as well as the basis on which the project itself and the educators are all evaluated. It may be necessary to consider these parameters in project evaluations. For instance, what were institutional constraints you encountered or what possibilities emerged within specific settings?

Define who evaluates whom

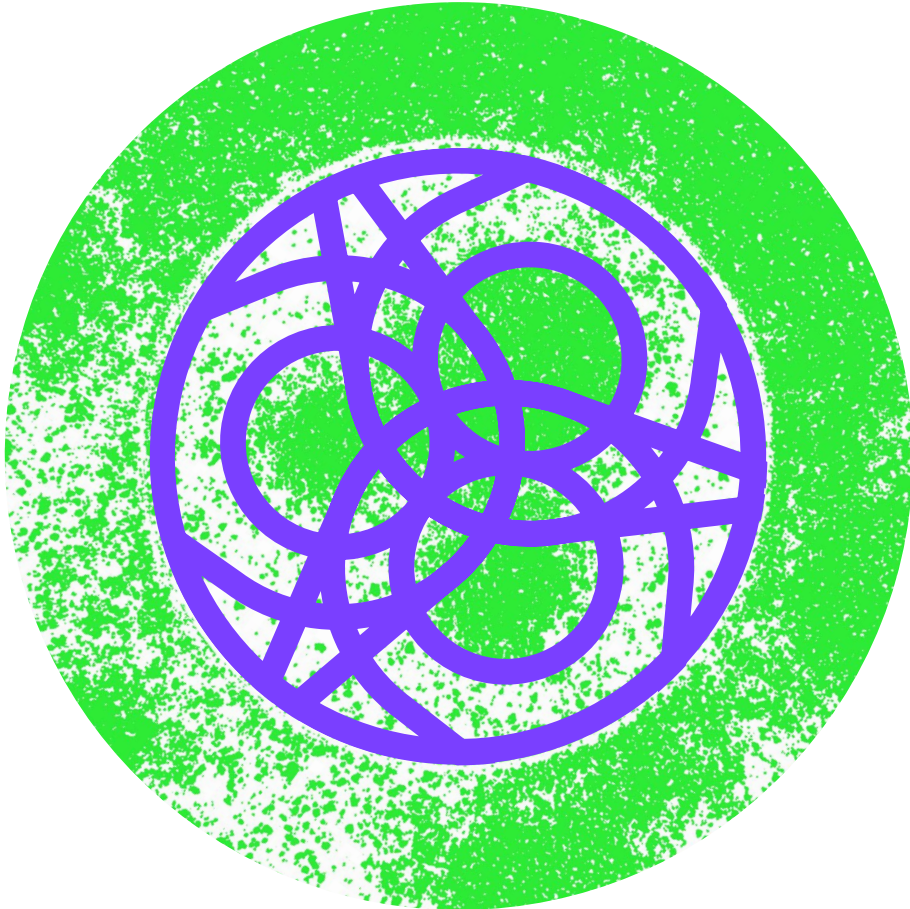
Your project needs to be evaluated by different people directly or indirectly involved in the project. The evaluation involves the educators, non-university partner organizations and individuals, students and your institution. If your budget allows, you may consider involving independent partners to conduct a full project evaluation. Otherwise, you need to carefully design multiple lenses and formats of evaluation. For instance, you may need to enable participants to reflect on their own learning throughout the pro-

ject and to share (anonymously and eponymously) their thoughts and learning experiences.

It is important to avoid reproducing divisions between university and non-university participants in the evaluation processes. But you also need to take seriously questions of difference and power. For instance, consider if non-university partners are able to speak openly about the quality of collaboration or about negative classroom experiences, when university participants are present. Or how comfortable quieter participants would feel about sharing their views when engaged in a collective reflection together with more vocal participants?

In the case of collective reflection about the experiences of in-class collaboration, keep in mind the influence of different factors on creating a safe space for participants to share their views: The group size, the mix of people engaged and the power relations between participants (including the moderator). Institutional evaluations may have to be adjusted to participants' capacities and needs, e.g., scheduling or

language. For instance, you may consider using the structure of anonymous surveys completed usually by students at the end of a course and adjust the question types and make the survey securely accessible to non-university partners.

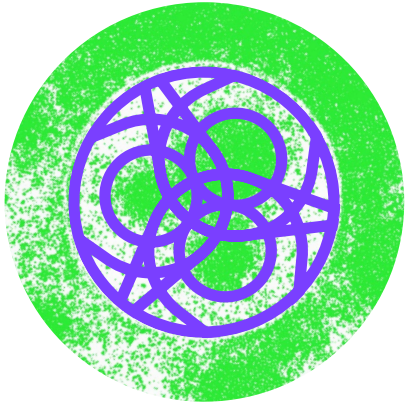


Tool 14

Identifying methods of evaluation

Aim

Outlining the methods through which you pursue an evaluation



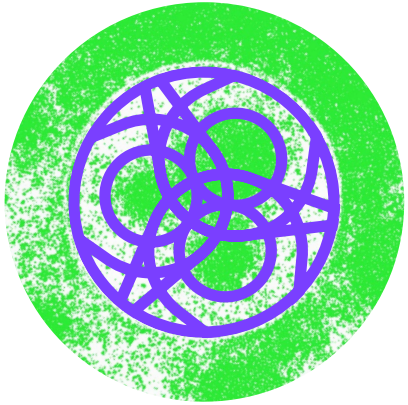
Tool 14

Identifying methods of evaluation

Challenges and considerations

One-size-fits-all evaluation frameworks fail to capture the variety of critical aspects emerging during collaborative research-based learning projects. Considering the different foci of evaluation [[Tool 13](#)], you may additionally reach out to individual actors involved to get their personal reflections, feedback and evaluation. Reaching different audiences may require test-

ing different methods and techniques to collect evaluation data. For instance, an anonymous structured survey may work for capturing a first-level evaluation of the whole project (e.g., goals, content, structure) by participants. Yet, this method may not be the best for procuring evaluations and reflections from non-university partners on the institutional, social and other barriers in these collaborations. In such a case, individually reaching out to participants can be beneficial in gathering supplementary, in-depth qualitative feedback. Considering the centrality of teamwork in collaborative research-based learning projects you may also consider methods that support collective reflections (e.g., focus groups), to retrospectively discuss certain aspects of the project. In all these cases, if the convenor or educator are the organizer of the evaluation, consider this will limit the extend of useful feedback you are able to get about your role in the collaboration.

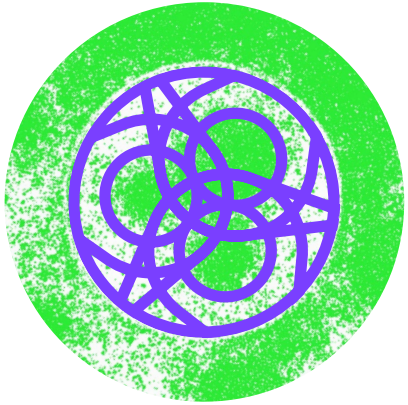


Tool 14

Identifying methods of evaluation

Checklist

- Employ more than one method for each focus of your evaluation. Mixing methods will help you to approach your evaluation object (e.g., collaboration, didactics, etc.) from different perspectives.
- Triangulate your evaluations. Make sure you use different perspectives and methods to evaluate an aspect of the project (e.g., educators and non-university partners can both evaluate outcomes, but the evaluation methods may differ).
- Evaluation methods should be carefully selected based on evaluators' needs, capacities and resources. To distribute power, you may consider involving non-university partners in evaluating research outcomes. This may be feasible only in some phases of the project. Consider what is practically possible and what resources are required.
- Evaluation methods should also enable a space for constructive self-reflection on the contributions of all participants.



Tool 14

Identifying methods of evaluation

Practice examples

Diaries

As a qualitative research method, diaries can be used for collecting longitudinal data about individual perspectives, activities or experiences and their change over time. In an evaluation framework, diaries can be a valuable tool for participants and educators to track the learning process. Moreover, it can be used as quick feedback to educators, enabling them to identify conflicts and problems during the project. Through a diary, participants regularly reflect on a topic or more specific questions in writing. Consider introducing a weekly diary-keeping routine. To guide participants, you can provide the same questions or prompts (e.g., new learnings, broader reflections, future expectations) to which participants respond each time. Keep the formulation of questions general but also simple and schedule a standard amount of time (15 minutes).

Providing a diary template with specific questions can support participants' writing and facilitate the data analysis at a later stage.

Web-based Text Editors (e.g., Edupad, Etherpad, or Google Docs) are sometimes usable without login. However, you need to ensure that all participants have internet access and that personal data is protected. Set the accessibility of the diaries to be exclusively for the authoring participants and the educators. A challenge is the consistent completion of the diaries. For instance, participants may forget or skip the weekly routine. You will need to remind them.

Another thing to consider is that participants tend to see the diary as a tedious extra task they have to do as "students." Consequently, they may not see it as "their" diary or as something that benefits them and their learning. The formats can influence participants' engagement. You may want to give participants their own notebook instead of sending them an online questionnaire. To make the benefits for the quality of the collaboration and the research process tangible, you may need to combine diaries with collective formats of reflection (e.g., group discussions (see next example)).

Whole group discussion

Group discussion can be a useful method of reflection, interim evaluation and feedback. Consider regularly taking time for group discussions throughout the course of the project. Depending on the group size, needs and availability, schedule 30-45 minutes and adjust the frequency.

Group discussions can support participants and the educators to reflect on issues regarding the workflows, participants engagement, comprehension issues and the collaboration overall. It is important to consider who moderates these discussions. For instance, if directly involved educators are included, certain information may not be revealed. Participants may not speak up freely about issues of concern, particularly on matters that confront teaching formats, assignments or didactic approaches. For an open discussion culture, group size is also relevant. Within larger groups (e.g., more than 15 people) it is difficult to limit the sense of exposure that some participants may feel, which can be detrimental to speaking about delicate issues

or conflicts. For this reason, organizing group reflections will make more sense with smaller working groups within the project. Keep the possibility of addressing issues concerning the whole collaboration through other channels.

Structured survey

Conducting a structured survey about participants' satisfaction with the course may be a requirement set by your institution. Typical course evaluation surveys are structured online questionnaires that involve multiple or single-choice questions, scale questions and sometimes open comments. The quantitative focus ensures the comparability of responses between course participants and different courses at the same institution. In a collaborative research-based teaching project, structured surveys can be helpful to evaluate the overall project structure, the participants' satisfaction with the project, the pedagogical methods and their learnings. Yet, it is necessary to consider that structured surveys may not be able to capture the actual

research and learning process and the nuances that might exist when people justify their answers in evaluations.

Since institutional evaluations can influence how collaborative research-based teaching projects are valued and could have an impact on whether or not they receive funding or are permanently integrated in university curricula, it is important to engage with them. You must ensure that adjusting the standard survey format your institution provides is possible. Organize a meeting and openly exchange ideas about how to adapt or enrich the survey and what the existing limitations are. The existing survey questions have been tested. Do not assume that these questions are irrelevant for your evaluation.

Moreover, consider that the format is widely known to university students but not non-university partners and participants. For this reason, you will need to keep the survey short with a simple structure and language. Online survey tools can be combined with possible direct translations, in case this is necessary. Your goal is a high response rate. Consider

planning enough time within a meeting, where all participants complete the survey. Ensure that all participants have the necessary infrastructure for completing the survey (e.g., access to a computer and internet).

Focus groups

Focus groups are a valuable method for collecting evaluation data. It is comprised of a moderated and recorded discussion (3-5 participants and a moderator) aimed at collecting group feedback on one or more topics. A focus group shares similarities with group discussions, but is a more curated discussion during which a moderator can directly observe and note participants' responses, reactions and interactions. As focus groups may enable delving into shared experiences, the mix of people involved should be carefully selected. You may consider organizing a focus group with people that shared experiences and played similar roles during the project or you might want to engage quieter participants. Ideally, focus groups can work as

safe spaces in which people feel comfortable to express their views and thoughts, even intimate impressions or controversial opinions.

Focus groups are particularly useful to inquire deeper into the experience of non-university partners or participants in order to assess potential blind spots or problems in the collaboration process, such as forms of epistemic injustices that have been experienced. If multiple projects are planned with one partner organization, this is particularly useful to avoid repeating similar problems in a subsequent iteration of the project and may additionally serve to strengthen the partnership.

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