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Chapter 11

Participating is also learning!

Laura Seguin, Patrice Garin, Sabine Girard,
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Learning is an important effect of participatory processes. As a participant, facilitator or commissioning authority, anyone who partakes in the process acquires some form of new knowledge, know-how or skill through the social interaction that takes place. Yet, in practical terms, learning is rarely assessed. So, what exactly is involved and how should it be done? In this chapter, the authors propose a formalised framework based on their own research experience on participation in the field of water management.

⏩ A few elements for understanding

Beyond the effects on decision-making, participatory processes can have effects on the actors who take part in them: citizens, professionals, elected officials, community organisation members, researchers, etc. As bearers of knowledge, interests and different representations of the issue under discussion, actors come together to put these factors forward, to guide and even transform the discussions and decisions of the issue at hand. In return, they too are transformed. As a place of social interaction, participatory mechanisms are spaces for learning, including the (trans)formation of understanding, individual knowledge, know-how, skills, and at times social representations and behaviour.

Why show interest in these learning processes?

Firstly, to be able to establish causal links between what happened during the participatory experience and decision-making. Establishing a new collective management rule, for example, will have required several acquisitions: new knowledge or ways of perceiving an issue at the diagnostic stage, knowledge of other participants, establishment of rules regulating discussion between them, debating skills and the ability to establish a collective opinion, to work towards a common interest, etc. Identifying these links means showing the added value of participation with regard to decisions taken by a panel of representatives who have in this manner acquired political skills and the ability to inform themselves, debate and decide. It also means identifying the key points to be worked on with the audiences not directly involved in the process, so that they too understand the decision taken.

Acquired knowledge and know-how can then be reinvested elsewhere, in other situations, and feed other forms of democracy. For example, citizens who have acquired

new skills during a participatory process may then become involved in a cause, or in local politics, strengthened with what they have learned (Talpin, 2011; Seguin, 2020). A social extension of learning may therefore occur, both over time and within different social groups: the individual, the group of participants, the social groups to which they belong, society at large or local institutions, etc. (Webler *et al*., 1995; Reed *et al*., 2010)

Learning: what is it about and how can it be assessed?

Participation is a social activity that tests the individuals and groups that take part in it. It can be seen as a series of events that constitute learning situations (i.e. workshop discussions, field visits, surveys, exercises to explore possible futures or experiments, time for reflection, etc.). The questions summarised in figure 11.1 can be used throughout the process to grasp the effects of this learning.

Who learns?

By considering the learners in a participatory experience through a broad lens, we may consider both the mandators and designers of the mechanisms (elected representatives, institutional actors, researchers, facilitators, etc.) as well as the participants mobilised (socio-professional actors, community organisations, citizens, residents, locals, etc.), and even audiences not directly involved in the process, but who may be affected indirectly via social networks. Let us bear in mind that the boundaries between these categories are fuzzy: an elected official, institutional, socio-professional or community actor may be both a mandating authority and a participant. Citizens or local residents, on the contrary, rarely initiate or design participatory approaches. And while participation is still too often thought of as a one-way "educational" tool for citizens, this broad view demonstrates that it can also be a rich source of information for public authorities and stakeholders.

Individual or collective learning?

A distinction can be made between learning at the individual level and learning that takes place within a group that has been or is being formed during the participatory experience. Work within a group particularly leads to transformations in the ways in which we learn together, i.e. confronting each other's views in order to enrich each other's skills and develop a common capacity for action. Thus, the collective development of expertise or the gradual establishment of discussion rules allowing everyone to participate are examples of collective learning. Moreover, the direct participants are not the only ones who learn; forms of dissemination through social networks may appear, for example via an organisation or club to which they belong, or through the organisation in which they work.

What is learned?

Learning differs depending on its nature. Cognitive learning refers to knowledge; it can be expert, professional or practical. Political learning refers to the acquisition of skills, know-how or aptitudes that encourage involvement in collective action i.e. taking the floor, listening, debating, generalising, leading a discussion, managing conflictual negotiations, formulating an opinion, etc. Organisational learning refers to the construction of new forms of organisation and/or exchanges between actors.

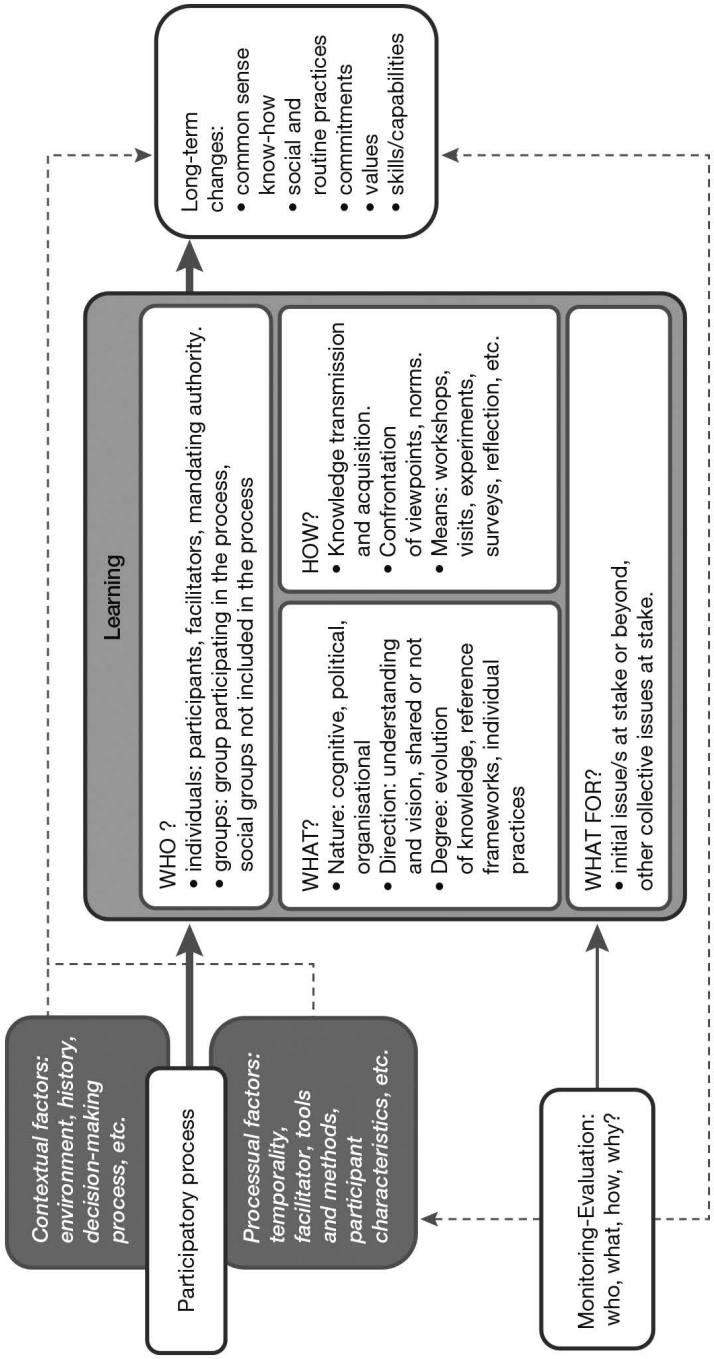

Figure 11.1. Conceptual framework for the assessment of learning

The direction learning takes within a group can also be of interest: does it allow for the co-construction of shared understanding or, on the contrary, does it reinforce divergent views?

How does learning take place?

Whether individual or collective, learning is part of social interaction. However, participants can play a more or less active role. There are different types of learning events or situations such as the transfer of knowledge (e.g. when an expert informs participants), debate and negotiation (e.g. when participants exchange with each other), intercomprehension (e.g. when each participant explains what they see and understand during visits), investigation or experimentation (e.g. when participants are asked to identify a problem and to find the solution themselves) or reflective feedback (e.g. when a group is led to reflect on what it has learned and what it lacks for the future). These situations do not produce the same types of knowledge. However, the importance of such learning is elicited well in the words of philosopher and teacher John Dewey: "learning by doing".

The methodology used to assess learning can be broken down into four main elements:
– *When to assess?* The temporal dynamics of all these effects require several moments for observation: before the participatory process (ex-ante), during it (in itinere), just after it (ex-post), or even a long time afterwards (a posteriori).
– *How to assess?* Among a wide range of tools, two main categories can be mentioned: external assessment (interviews, cognitive mapping, participant observation) and self-assessment involving reflexive feedback from participants (through self-administered questionnaires, workshop debriefings, role-playing using serious games, or viewing key moments that have been filmed).
– *Who assesses?* As with the whole process (see chapter 10), mandating authorities and participants can contribute to the assessment of transformations; firstly, by identifying topics on which they need to deepen their knowledge or develop their skills; and secondly through self-assessment of the transformations or through peer evaluation.
– *Why assess?* The aim is to identify any shortcomings in the system for the participants as well as to identify the key points of the group's dynamics (a shift in views, reaffirmed opposition to certain points of view, a lack of knowledge or skills for some). These elements can help to plan a complementary action aimed at audiences who did not participate. From a scientific standpoint, evaluation sheds light on the mechanisms and comparative effects of different approaches.

What connections can be made between participatory approaches, learning and long-term change?

The objective of a participatory process is often transformative: it aims to influence behaviour or implement actions in response to a given regional issue and to which a group of stakeholders is trying to respond. It is also about strengthening the capacity of actors to adapt to the challenges that will arise in the longer term and on different scales.

However, translating this learning from a small group to large-scale societal transformation at the local level involves long and complex processes:
– the knowledge acquired by the beneficiaries of the scheme will clash with the common sense knowledge of the social groups to which they belong. Accompanying actions can help the knowledge acquired by a few to trickle down to the masses (e.g. environmental education, etc.);

– the acquisition of knowledge and a new shared social norm on behaviour deemed "virtuous" do not necessarily translate into changes in daily practices. Including them into routine practices is a complex individual and social process (examples: sorting waste, reducing water consumption, etc.);
– extension of engagement in collective action is also multi-dependent. If a participant becomes involved in a local organisation or in the town's administration, this is undoubtedly linked to the acquisition of new political knowledge and know-how, and probably also to the fact that this learning is coupled with an effect of social recognition and promotion. This effect is itself to be crossed with the socialisation effect that the experience has allowed e.g. the meeting of community actors or elected officials, the possible bonds of trust or even friendship that have been established, etc.

⏩ Feedback

Table 11.1 and boxes 11.1 to 11.5 present five assessment take-aways from learning that ensued from participatory processes. In order to compare them, we have used the theoretical framework elements set forth in the previous section. Consequently, these examples illustrate the diversity of learning audiences, the types of learning, their modalities, as well as the diversity of the methods used to assess this learning.

Table 11.1. Comparative presentation of case studies

Participatory process	Example 1: Citizen conference on water within the scope of a water management plan (SAGE[1]) in Charente	Example 2: Participatory research: Brie'eau project	Example 3: Preparation phase for revision of the Drôme water management plan (SAGE[1]) with the citizens (SPARE[2])	Example 4: Testing water scarcity learning devices on the Drôme and Cèze rivers	Example 5: Ex-ante ex-post assessment of capabilities using a role-playing game (CappWAG
Who has learned?	Randomly selected citizens, elected officials, water managers, CBOs[3]	Farmers, agricultural cooperatives, elected officials, water managers, CBOs, researchers	Citizens (voluntary participation), water managers (river syndicate agents; local water commission members); researchers	Two panels of about ten elected representatives and ten citizens	Approx. 40 students at Master 1 level
What was learned	Cognitive knowledge on water, the catchment area, use conflicts and participation processes. Participatory know-how (workshop)	Cognitive knowledge on the agricultural system of the region, pollution. Know-how (participatory and organisational).	Cognitive knowledge on water, its uses, its management and on participation. Relational knowledge (who the others are and how to do things together); Participatory and organisational know-how	Essentially cognitive knowledge on water, drinking water, its stakes, its management, pricing, water scarcity and water scarcity management, the territory.	Political knowledge (taking the floor, making a diagnostic together) and organisational knowledge (creating and implementing new management rules).
How was it learned?	Collective survey, role-playing on a watershed, hearing from experts, working in small groups, writing a collective opinion.	Small group workshops, field visits, participatory simulation workshop (role-play).	Series of participatory workshops: focus group, expert hearings, modelling, role-play, survey, etc.	Focus groups, dialogue with experts; serious game on pricing, development of communication materials.	3-month course on participation combining theory and case study group work.
How was it assessed?	Interviews, observation, video feedback.	Interviews, observation, collective debriefing at the end of workshops.	Interviews, observation, self-assessment, group debriefings.	Interviews (keywords, drawings and questions), self-assessment.	CappWAG assessment tool: role-play, questionnaire, focus groups and interviews.

Participatory process	Example 1: Citizen conference on water within the scope of a water management plan (SAGE[1]) in Charente	Example 2: Participatory research: Brie'eau project	Example 3: Preparation phase for revision of the Drôme water management plan (SAGE[1]) with the citizens (SPARE[2])	Example 4: Testing water scarcity learning devices on the Drôme and Cèze rivers	Example 5: Ex-ante ex-post assessment of capabilities using a role-playing game (CappWAG
When was it assessed?	Before, during, just after and two years after the participatory process.	Before, during and just after the participatory process.	Before, during and just after the participatory process.	Before, during and just after the participatory process.	Before and just after the course on participation.
Who evaluated?	An external researcher.	The steering group of the research project (researchers and their partners) by involving the participants.	A monitoring and evaluation group composed of researchers, project leaders and citizens.	The researchers.	The researchers.
Why was it evaluated?	Knowledge of learning processes (research).	Knowledge and adjustment of the process along the way.	Awareness raising and empowerment of actors in terms of participation (and its assessment) Knowledge on learning processes.	Knowledge on learning (effect of the interaction devices tested).	Knowledge of learning/ capability acquisition processes.

[1]SAGE: schéma d'aménagement et de gestion des eaux.
[2]SPARE: European project "Strategic Planning for Alpine River Ecosystems 2015-2018".
[3]Community-Based Organisation

Box 11.1. Learning from a citizen conference in the scope of the SAGE Charente

In 2011, the Regional public establishment (EPTB*) for the Charente river in France—the structure responsible for the then emerging local water commission—joined forces with a regional organisation (Training and research institute for environmental education—Ifrée**) to implement a process to involve residents from the catchment area in the local water policy.

The approach included three weekends that first provided citizens with information (on water management, the notion of the water cycle, the watershed, as well as on the conflicts of use in their region), then included them in critical investigation during meetings with experts, stakeholders or users of water, and finally provided a space for deliberation and construction of proposals in a workshop aimed at drafting a collective opinion.

The citizens' diagnostic and their proposals for water use conflicts set the tone for the work to be undertaken within the local water commission. This experience was monitored in order to identify the learning processes at work in the various actors who took part: elected officials and EPTB agents, Ifrée facilitators and citizens. Interviews were conducted before, just after, and two years after the process in order to identify long-term learning. These interviews were complemented by observation notes taken during the steering committee meetings, each weekend workshop, and various discussion times that led to drafting of the opinion. In a rather original way, video was used as a methodological tool in order to collect the participants' feedback of their experience in the experiment, and to identify what they had learned.

The results show cognitive and political learning. Firstly, in the water managers who, together with Ifrée facilitators, gradually became acculturated to a different way of conceiving public participation. Secondly, in the participants, who, in addition to having built up group expertise on the issue, acquired keys to political interpretation that they did not have before, feeding curiosity that in turn transformed their habits on obtaining information, for example, and even politicised certain individuals. These effects, which are still visible two years after the experience, are sometimes reflected in continued involvement (in CBOs, activism, local politics; Seguin, 2020).

* Établissement public territorial du bassin.

** Institut de formation et de recherche en éducation à l'environnement.

Box 11.2. Regional dialogue on the issue of diffuse agricultural pollution (nitrates, phytosanitary products) in the Brie region

The Brie'eau research project aimed to experiment with a participatory approach to facilitate dialogue on diffuse pollution of agricultural origin in the Brie region of France (Seine-et-Marne department). Farmers and stakeholders from the agricultural sector, local elected officials, drinking water stakeholders and local user CBOs were encouraged to co-construct a more resilient region by using two levers for action: changes in agricultural practices and landscaping that acts as a buffer zone by intercepting part of the pollutants between agricultural plots and the surrounding environment.

Box 11.2. (next)

A card game adapted from a pre-existing game, Mete'eau (Barataud *et al*., 2015), was used to highlight perceptions and values, which were then to be discussed, of each actor from the area and concerned by its issues. This phase was followed by field visits and exchanges with scientists, which were conducive to knowledge sharing. A simulation tool was then used to build a common vision of the region and to imagine evolutionary agronomic scenarios. Finally, a role-playing game built with the help of the Lisode consultancy firm provided a virtual space for discussion and negotiation around individual and collective actions (figure 11.2).

The entire process was observed, and interviews with the project initiators (scientists and their partners) and the participants were conducted before and just after. The participants testified to the acquisition of knowledge on the issue of water quality, on buffer zones and their multiple functions, and on the agricultural system of their region. Moreover, this experiment has contributed to the creation of a community of concerned stakeholders, who know each other better, who are able to hear each other's different visions and who are ready to continue the reflection together. This first step was essential to the sensitive and contentious subject of diffuse agricultural pollution.

Even if it is still too early to talk about real organisational learning, several signs point to a shift in the way local collective action on water and agricultural issues is thought out (Seguin *et al*., 2021).

Figure 11.2. "Res'eaulution Diffuse" role-play (Brie'eau project)

Box 11.3. Citizen participation in the preparation of the Drôme SAGE revision

Water management plans (SAGE), the main planning tool for water management at the local level, are drawn up by local water commissions, which include representatives of State services, elected representatives and users. But what about the citizens and local populations of the concerned catchment area?

Between 2016 and 2018, as part of a European research-action project (SPARE Project, Interreg Alpine Arc), the "Syndicat Mixte de la Rivière Drôme" union decided to collect the opinions and proposals for action of citizens on the river and its management in order to feed this into the revision of the SAGE.

The originality of the approach was to involve participants in the design, implementation and monitoring-evaluation of the participatory process itself. Thus, the expected learning was as much about the subject of water and its management as about the subject of citizen participation itself (how to do it, for what purpose?).

The learning was assessed through participant observation, semi-structured interviews and self-assessment questionnaires.

The results show cognitive learning by the citizens, in particular on water, its uses, the stakes and the organisation of water management, as well as on the room for citizen action. Some of the proposed actions thus concern access to information and the possibilities of contributing more actively to local water governance. This learning is also relational and organisational; for example, it has led to the integration of citizen as participants in the local water commission.

Learning, notably organisational learning, also took place among the agents and elected representatives from the river union: the latter modified their communication policy, internal working methods and facilitation of the Drôme SAGE (Ferrand *et al*., 2018).

Box 11.4. Learning about water scarcity in the Drôme and Cèze regions

Adapting to climate change requires a change in consumption practices, especially for drinking water. These behaviours depend on the representations that each person makes of their practices and their effects on the environment. They are qualified as common sense knowledge, which is transformed in places of social interaction and via the media where perceptions, attitudes, experiences and opinions are encountered. Participatory mechanisms can be considered as times when points of view are confronted. They are said to have the capacity to promote the dissemination of new social representations, but in reality, how true is this?

Exactly this is what was tested in a research project financed by the Rhône-Mediterranean-Corsica water agency. The research team traced the evolution of social representations of water, drinking water, its scarcity as well as the way it is managed, following each of four interactive sessions that took place:
– focus group,
– dialogues with experts,
– exploration of social dilemmas on water pricing in the course of a serious game,
– collective elaboration of communication materials for the general public.

Box 11.4. (next)

The project mobilised four groups of elected representatives and citizens from the Diois greater municipality (Drôme department) and the Cèze-Cévennes greater municipality (Gard department), located in water distribution zones.

Four methods were used to analyse these representations and their evolution: i) the associative method based on the statement and classification of word-images by each person in reaction to hearing a word-inducer (water, drinking water, scarcity); ii) mind maps on the issue under discussion (drawing where the water from my tap comes from or where it goes next); iii) semi-structured interviews and iv) individual and group self-assessments.

The results show that the serious game on water tariffs and the collective development of communication materials were the two most fruitful mechanisms for social learning. Climate change and its concrete consequences had the greatest impact on people. However, while knowledge evolved, there has been little concrete change in consumption practices or in the way services are managed. Identifying the conditions required to translate this new knowledge into new practices would require extending the study into looking at the motivations for acquiring new equipment and making new behaviours routine.

It could draw on recent developments in the theory of practices applied to the sociological study of consumption (Garin *et al.*, 2022).

Box 11.5. Ex-ante ex-post assessment of capabilities using a role-playing game (CappWAG)

For a participatory process to be transformative and effective, participants need to have a number of participatory capabilities, i.e. capacities to participate (Frediani, 2015). These correspond to potential capacities for action that allow them to take part in the participatory process in possession of all the necessary means to make their voice heard and to have influence. These skills to be acquired in order to make an informed contribution to the decision-making process are similar to political or organisational learning, among other things.

In order to assess the existence, strengthening or weakening of these capabilities, the CappWAG assessment tool was developed (figure 11.3). It is based on an eponymous role-play (divided into an ex-ante and an ex-post version), a questionnaire and a collective debriefing. The tool was thus implemented in 2017-2018 to evaluate the impacts of a three-month course on integrated water resource management with five groups of first-year Master's students.

The results showed that learning of the three assessed skills (speaking in front of a group, making a collective diagnostic, and creating and implementing management rules) was very diverse. After the three-month course, these had not always increased in the groups (expected impact) and sometimes even decreased! The course, but also socialisation of students elsewhere outside of the university, were cited as the main factors influencing the individual and collective abilities of the students to work together.

This case study thus allowed for a better understanding of how political or organisational learning is formed and evolves over time (Loudin, 2019).

Figure 11.3. CappWAG, a tool for assessing learning and skills

⏩ Conclusion

A participatory process is always rich in learning and constitutes just one more reason to fully commit to it. Sometimes, learning may even be the main objective of the project initiators.

Individual and collective investigation constitute a formative experience, both for the participants and the mandating parties, as well as for the facilitators who can contribute to the co-design of the process, its implementation and its evaluation.

However, learning depends on several factors. The first factor is temporal: mobilising people over a long period (as in the example of the Drôme SAGE: two years) can allow for more intense transformations to take place than an ad hoc and time-limited approach (as in the case of the citizen conference: three weekends and two days of feedback). Moreover, the initial knowledge and skills of the participants also have consequences on the types and paths of learning. In the course of our experiments, we have observed, for example, that a participant, who is already involved in community-based organising and already familiar with the functioning of public action and the art of negotiation, will more readily be at ease with the functioning of water policies and will feel comfortable in a workshop format that encourages debate. This is why the sociological characteristics of the mobilised audience (initial training, profession, commitments, previous participation experience, etc.) are an important factor to take into account when seeking to promote and/or evaluate learning. In this respect, we note the importance of the role and skills of facilitators and coaches, as well as the tools they use, in creating the most favourable situations for the transformation of knowledge, depending on the diversity and unequal abilities of the participants.

In the examples presented, participation professionals were sometimes called upon for their facilitation skills (Ifrée, Lisode). They contribute to the pedagogical aspect of materials, presentations and visits, facilitate exchanges and ensure the participation of everyone, in particular by taking into account the pre-existing power relationships between participants. Finally, these transformations have long-term effects; they deserve to be observed, not only during and after the process, but also long after the participatory process has ended. The five examples presented show that the assessment of learning can be carried out by a variety of actors (researchers, project steering group, the participants themselves) and using different methods. This can only be achieved if the necessary resources are anticipated right from the beginning at the design stage.

The question of learning is an integral part of the monitoring and evaluation of a participatory approach. Some of the methods proposed in chapter 10 are adapted to this objective. Let us bear in mind that the gains of an experience will be all the stronger if they are identified by the actors themselves. It is therefore important, even if an external person is called in, to share this assessment with all the participants and to allow them to reflect on what they have learned as individuals and as a group. Learning to learn, learning to pay attention to what is being learned, why and how we learn, is an important step to learning, whatever the subject may be.

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Part 3

Participatory Modelling to Support Decision and Change