



Technical Report

Strategies for the sustainability of expansive learning in a Change Laboratory

Marco Antonio Pereira Querol

Department of Agricultural Engineering, Federal University of Sergipe, Sergipe, Brazil;
mapquero@gmail.com

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Abstract: The Change Laboratory is an interventionist method that fosters expansive learning by enabling participants to identify contradictions in their collective activity system and collaboratively design new solutions. However, the sustainability of this learning beyond the intervention remains a challenge. This paper discusses strategies to strengthen the continuity of expansive learning processes after the formal closure of Change Laboratory interventions. Drawing on practical experiences, six categories of strategies are presented: (1) empowering interventionists through training and networking; (2) negotiating with strategic decision-makers to secure resources and support; (3) empowering participants with preparatory training; (4) adapting intermediate tools to connect abstract concepts with concrete practices; (5) combining intervention with complementary communication methods such as media, theater, and consultative meetings; and (6) creating parallel learning spaces to support planning and engagement. Together, these strategies aim to consolidate and extend the learning outcomes of Change Laboratory interventions by fostering the participants capacity to maintain the learning process by themselves and to expand it to other social spaces. The systematization of these practices offers guidance for researchers and practitioners seeking to ensure the long-term sustainability of expansive learning in organizational and societal contexts.

Keywords: Expansive learning; Sustainability; Formative interventions; Strategies.



1. Introduction

An interventionist who intends to apply the Change Laboratory (CL) method wonders, before or during (or sometimes unfortunately only after) the intervention: Will the learning generated in the CL continue? What can I do to increase the chances that participants will learn and continue the process after the intervention is over? I argue here that the adoption of certain strategies can increase and strengthen the sustainability of expansive learning after the intervention is completed.

By sustainability of expansive learning, I refer to the durability and consolidation of the new activity system model that has been created and implemented during the CL. This means that the activity must advance through the expansive learning cycle toward consolidation and dissemination. Such a process requires time and the capacity to identify and analyze new tertiary contradictions (between old and new elements of the system) and quaternary contradictions (between the new activity system and neighboring systems) that emerge during implementation. When necessary, it is essential to return in the expansive learning cycle, initiating new rounds of analysis and modeling of the activity system. This, in turn, requires maintaining expansive learning spaces where participants can independently continue the learning process without the constant presence of the interventionist researcher. Ultimately, the sustainability of expansive learning also involves the ability to reflect upon, systematize, and disseminate the knowledge gained to other locations.

This preparation is important because the expansive learning process is by nature long and usually develops over several years. It refers to the expansion of the object of an activity, that is, to the qualitative increase of the purpose that guides that activity. This is a phenomenon that occurs naturally in the daily routine of activities, and is not exclusive to interventions performed through CL. However, becoming aware of the contradictions that affect the collective activity system and being able to purposefully and collaboratively model and test new solutions — with the support of appropriate cognitive tools — can accelerate and catalyze this type of learning. The Change Lab offers exactly such a structured space to foster critical reflection and experimentation, contributing to sustaining expansive learning even after the formal closure of the intervention.

Even when successful in generating expansive learning *within* and *from* an CL, this type of learning is fragile and risks coming to a halt after sessions and projects are over. This is because, for example, new unforeseen contradictions may emerge, or because it is very likely that the solutions initially conceived will need to be enriched and detailed, in a movement of passage from the abstract to the concrete. In addition, when the solutions begin to be implemented, the system under intervention starts to collide with neighboring systems, and new contradictions emerge in the interfaces between them.

Therefore, in order for the expansive learning initiated in an CL to be continued, it is necessary to create a more permanent learning activity. This involves the creation of a continuous physical and social space, composed of the community of people involved in the analysis and resolution of problems, as well as the development of the subjects, enabling them to use learning tools that sustain the process over time.

In this paper, I intend to share with the reader some of the strategies I learned throughout the interventions performed. Some of these strategies are not new and have already been discussed by colleagues and me in other publications. Even so, its systematization can contribute to the strengthening of interventional practices. The strategies are organized into six categories:



1. Empower the interventionist;
2. Negotiate with strategic decision makers;
3. Empower participants;
4. Intermediary tools;
5. Combine other methods of communication;
6. Create parallel learning spaces;

Below, I will present each of them, explaining what they are and how they can be implemented.

2. Strategy 1 – Empower the interventionist

Given the theoretical complexity on which the CL is based, the training of interventional researchers is essential. Often, these researchers feel a certain degree of insecurity when applying the method, especially in the use of concepts and principles. Questions such as: *What mirror data should I collect? Am I interpreting the contradictions correctly? What is the object of my activity? What second stimuli can I use in the sessions?* are common in this initial process.

Within this training strategy, some actions that individuals and/or research groups can adopt to facilitate the development of the necessary skills stand out. Among the most affordable options are participation in existing international courses, such as summer courses and MOOCs¹ offered by the University of Tampere, in Finland, and the University of the West², in Sweden. Courses taught in Portuguese, when available, by the ITAPAR group at FSP-USP³ or UNESP can also be used. In addition, academic exchanges and participation in scientific events represent important opportunities for learning and exchange of experiences.

Whenever possible, it is highly recommended to participate in an ongoing intervention by acting as an assistant. This practical experience — which may involve participation in planning meetings, sessions, and theoretical discussions — allows you to experience the method in practice and learn from direct experience.

Two other relevant actions are the strengthening of networking and the formation of local communities. Networking allows the support of more experienced researchers, especially in the theoretical interpretation and planning of sessions. This support is valuable, because, although there is now greater availability of teaching materials on the method, the operationalization and interpretation of concepts still represent significant challenges.

The formation of a local group of researchers can also be very effective. These groups are usually composed of advisors and their master's and doctoral students interested in the method, but they can also include professionals from different areas. These local support groups act as learning platforms (Lopes et al., 2021), allowing continuous interaction and the exchange of experiences within these groups favor collective and in-depth learning.

¹ MOOC: Key Concepts of Cultural-Historical Activity Theory (CHAT), Verkko-opetus | Tampere universities <https://www.tuni.fi/en/study-with-us/mooc-key-concepts-cultural-historical-activity-theory-chat-verkko-opetus>

² University West - Upcoming Events 2025 <https://www.hv.se/en/research/research-environments/area-of-strength-work-integrated-learning/centre-for-activity-theory/upcoming-events/>

³ Janus <https://uspdigital.usp.br/janus/componente/disciplinasOferecidasInicial.jsf?action=3&sgldis=PSP5312>



3. Strategy 2 – Negotiate with strategic decision makers

Negotiation can be understood as a continuous learning process between interventionist and strategic decision makers aimed at supporting the CL intervention. The negotiation involves the implementation, evaluation, consolidation and dissemination of the solutions generated throughout the intervention. Therefore, for an intervention with CL to be successful, it is critical that there is a continuous process of shared learning, active communication, and decision-making involving key actors throughout the intervention, i.e., negotiation.

Negotiation usually involves, at least initially, the researcher and the decision-makers. However, whenever possible, it may also include intermediary actors who can provide support — for example, an internal agent within the organization who embraces the idea of the intervention and maintains both contact with and the trust of the decision-makers.

Who are the strategic decision-makers within an activity depends on several factors, such as the form of work organization, the degree of centralization in decision-making, the division of tasks, the hierarchy among the participants, and the distribution of the power of action. *Strategic decisions* are meant, for example, the allocation of financial and human resources within the organization, that is, decisions related to the allocation of people and money. Rarely is an organization completely centralized and hierarchical or totally decentralized and horizontal — the most common is to find gradients in the distribution of decision-making power.

For example, organizations such as the military police, schools, government institutions, and hospitals tend to have more centralized and hierarchical structures. In these cases, strategic decision-makers are often people in leadership positions, such as CEOs, directors, or managers. Depending on the context, decision-makers can be politicians or even the workers themselves. On the other hand, in contexts of less hierarchical organizations — such as family farming, technology companies, or the financial market — decisions often need to be made quickly and decentralized, involving autonomous teams or more distributed leadership.

The way in which negotiation in a CL is conducted is closely linked to the composition of the activities that make up the intervention and the degree of decision-making power of the participants involved. Recognizing these different organizational configurations is essential for the interventionist to be able to adapt their negotiation strategies, seeking to actively involve decision-makers in a way that is compatible with the culture and structure of the activity in question.

Negotiation, understood as the learning between the researcher and the strategic decision makers, may take place in different layouts. One of the simplest types of layout occurs in networked CLs, composed of interdependent activity systems (see Figure 1), in which participants have high autonomy in decision-making. A classic example is farmers who come together to discuss a common problem that requires collective action to be solved — such as controlling a pest that cannot be fought individually (Vänninen et al., 2015, 2021). This type of intervention involves local managers with decision-making autonomy, in which the participants are, at the same time, the strategic decision-makers. In this case, the communication tends to be simpler and more direct, as the participant and decision-maker are the same person. In these types of CLs, there is usually an initial interaction aimed at accepting participation in the CL, followed by punctual interactions, in case any participant withdraws or stops participating in the process. Most of the learning occurs during the open sessions and in interactions with other participants, rather than individually with the interventional researcher.

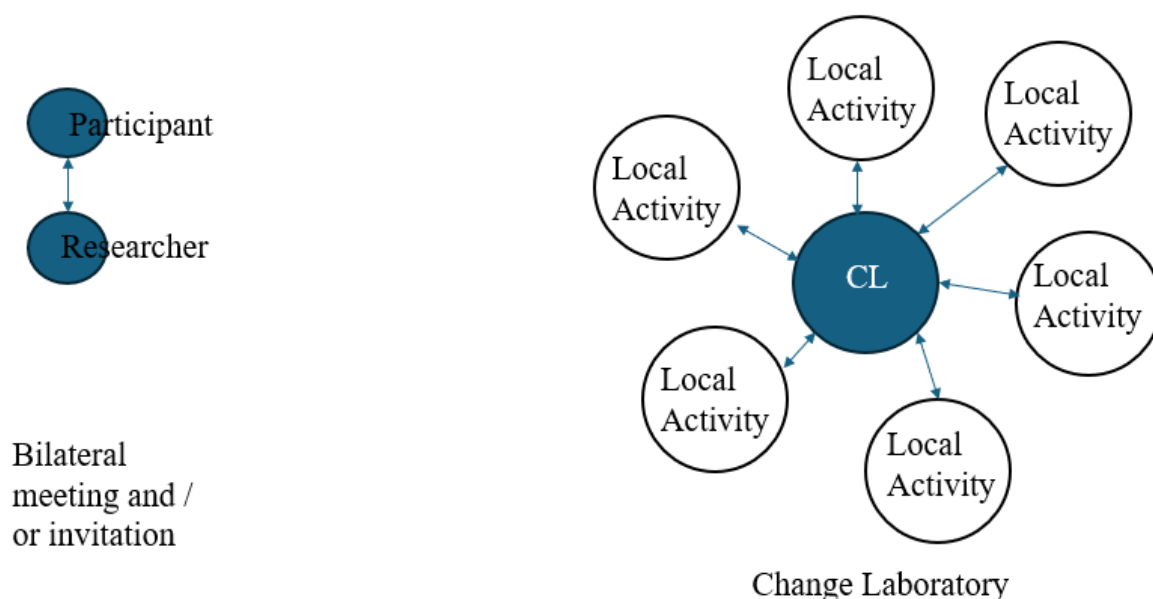


Figure 1. Representation of the layout of a CL composed of systems of interdependent activities and individual and direct negotiation with participants.

Another form of layout in which the negotiation takes place are the in Change Labs in which strategic decision-makers participate along with workers in the sessions. This type of CL usually takes place in local organizations or units with low hierarchy, where workers can speak out without fear of repression or retaliation. This is the typical case of CLs conducted in Nordic countries, where there is less hierarchical rigidity and greater openness to dialogue between different levels of the organization. In these contexts, interactions occur mainly at the beginning of the intervention, with the aim of obtaining the acceptance of the management. Once started, there is no need to maintain an exclusive space for negotiation, since managers actively participate in the sessions and directly monitor the development of the process (Figure 2).

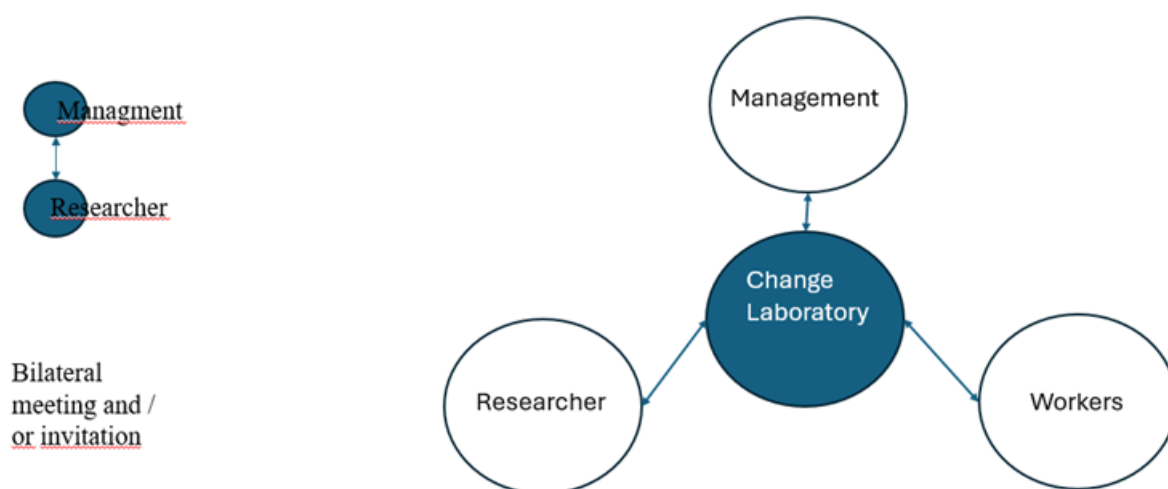


Figure 2. Layout of CL where management participates in the sessions, with a parallel initial negotiation.



During the application of Change Labs in Brazil, we observed a different context, characterized by a more rigid hierarchy and, frequently, by situations of conflict between management and workers. In these environments, the freedom of expression of participants tends to be limited, which can compromise the collective learning process. Given this scenario, it is recommended to create separate learning spaces between strategic decision-makers (e.g., managers) and workers on the shop floor. The goal is to offer an environment in which the latter can express themselves more openly and safely.

In this case, negotiation tends to be more prolonged, extending throughout the intervention, being mediated by the interventionist researcher until her or she assesses that the level of understanding achieved is sufficient to enable direct mutual learning — which can occur during or at the end of the intervention (Figure 3).

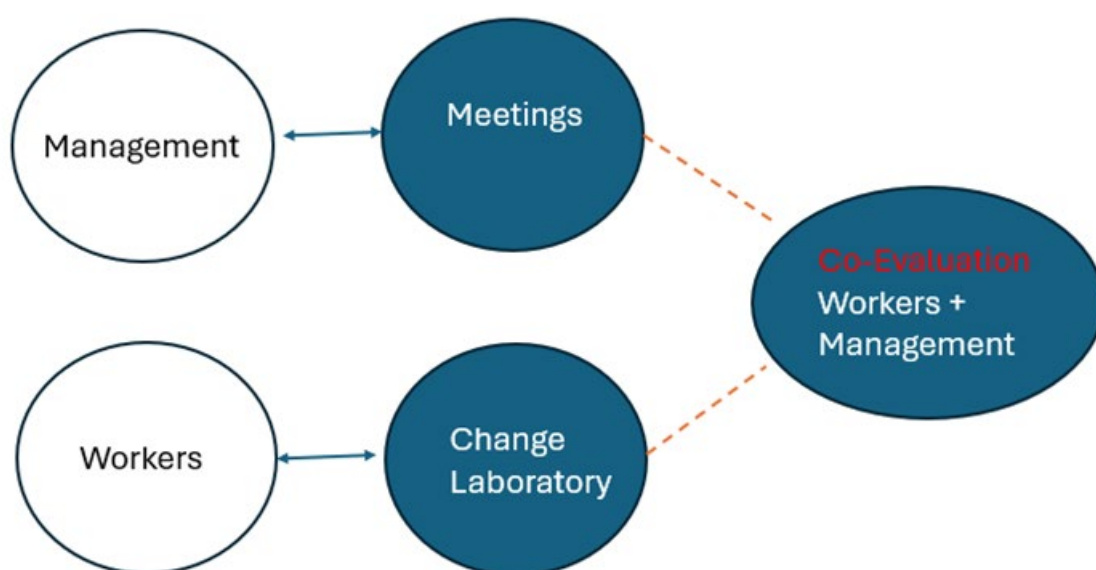


Figure 3: Layout of an CL's learning spaces in an environment with strong organizational hierarchy.

An example of a tool used to facilitate learning between workers and managers at the end of an intervention is the application of the Human-Centered Co-evaluation Method (HCCE) (Hyytinen et al., 2019). In this method, after developing innovations during the intervention, the workers present them to management in a special session. On this occasion, management evaluates the proposals and decides whether to support them. If the decision is positive, a support plan is prepared to enable its implementation.

4. Strategy 3 – Empower participants

In the research group on Health Promotion and Prevention of Accidents at Work (PesquisaAT), a preliminary phase of training has been implemented in some interventions, which involve training workshops. These workshops are not part of the original model of the Change Labs and, as far as is known, represent an exclusive innovation of the interventions conducted by this group. These workshops aim to introduce and train participants in the main



concepts that will be used during the CL sessions, such as the activity system and contradictions, allowing them not only to learn these concepts, but also to experience them, as in a "test drive".

During the workshop a video of *The Mammoth Hunt* (Figure 4) was used as a first stimulus, presenting a narrative about changes in primitive hunting activity. Participants were asked to analyze the structure of the hunting activity system and the contradictions that led to the incident that resulted in the death of one of its members. The video thus served as an exercise to consolidate the theoretical concepts learned, to illustrate the principle of stimulation used in the Change Laboratory, and to practice the dynamics of analysis. In addition to applying the concepts, the video also prompted discussions about the “mammoths” — that is, the problems — faced in the participants’ own activities.



Figure 4: Image from the video *Mammoth Hunt*⁴ used in the training of participants during training sessions.

Although the focus of the workshops was on the concepts and analysis of an activity completely different from that experienced by the participants – primitive hunting – it was reported, in some interventions, that these workshops have already aroused initial discussions about the real problems in the activities of the participants themselves. Thus, they act as a "mirror" and stimulus for learning. There were case reports where participants referenced their own contexts when discussing the problems observed in the mammoth hunt video. It was also observed that these workshops have a motivating effect, increasing the engagement of participants in subsequent sessions.

On the other hand, there was also a case where the use of the video was not productive, as the material was in another language and the participants had difficulty keeping up with the subtitles. This example demonstrates the importance of prior attention to the selection of mirror material, which must be adapted to the target audience whenever necessary.

5. Strategy 4 – Intermediary tools

CL follows the principle of movement from the concrete to the abstract, and from the abstract to the concrete. In practice, this means starting from concrete data — usually presented to participants in the form of mirror data (e.g., problem situations). This data is named because

⁴ *Caça ao mamute PREHISTORIA CAZA DEL MAMUT* - YouTube <https://www.youtube.com/watch?v=SsebMhfOax0>



its function is to reflect the activity. During the intervention, participants analyze and discuss these data with the aim of producing more abstract hypotheses about contradictions and models of the activity system. To do this, they usually make use of intermediate concepts and models that help in this process of abstraction.

Based on the generated hypotheses and abstract models, participants develop a new model of the activity system. Then, a process of concretizing these models begins, making them richer, more detailed and operational — that is, closer to concrete reality and capable of being applied in daily practice.

Thus, the process of abstraction and concretion necessarily involves the use of intermediate tools and models. Often, the activities analyzed already have specific tools that can be used or adapted during the intervention. An example is the MAPA (Accident Analysis and Prevention Model), used in the analysis of accidents (de Almeida et al., 2014). As it is a model known by interventionists, it brings with it a series of concepts that help in the connection between the abstract and the concrete, facilitating both the formulation of broader ideas and visions and their translation into practical actions.

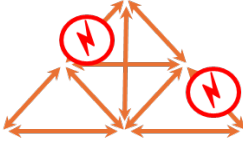

ABSTRACT IDEAS AND VISIONS	INTERMEDIATE TOOLS AND MODELS	CONCRETE DATA
	<p>MAPA - MODEL OF ANALYSIS FOR ACCIDENT PREVENTION</p> 	Data from interviews, observations and questionnaires the causes of a work accident
Hypothesis of the historical contradiction within and between the activity systems	Hypothesis of the technical and organization causes of the accident	Events and actions taken by people

Figure 4. Example of the use of MAPA as an intermediate model to the process of abstraction in a CL.

In summary, the strategy consists of incorporating, in the process of double stimulation, second stimuli — such as models, theories and concepts — that are pertinent to the activity analyzed and that serve as mediators between abstract thought and concrete practice.

6. Strategy 5 – Combine other methods of communication

Generally, not all members of an activity can directly participate in Change Lab sessions, which can limit the scope of expansive learning. On the other hand, the effective implementation of the solutions developed during the CL often depends on the collaboration of external actors who did not participate in the sessions.

To deal with this challenge, a recommended strategy is to combine CL workshops with other interventional communication methods, such as: mass communication, interpersonal communication, interviews and focus groups, consultative meetings, multilevel workshops, and entertainment strategies for education. This combination allows for increased involvement,



facilitates the dissemination of ideas, and engages the various actors necessary for the implementation of the proposed transformations.

Each communication method has a different function and can be used with different frequencies and audiences. It is recommended, for example, that the **social media** and **mass media method** of communication be used on an ongoing basis, with the aim of raising awareness and gaining the support of a larger external audience, such as society or an external community that is involved but does not participate in the sessions.

Interpersonal **communication** (email, telephone, direct message, and face-to-face) is usually also continuous, but has a more focused function: exploring different points of view, planning the intervention, and bridging gaps between research and practice. This method usually involves the research team and participants and/or consultants directly linked to the process.

Another important method is **in-depth interviews and focus groups**, which are used intermittently. These interviews usually take place at the beginning of the intervention; however, it can also occur during it, aiming to collect more complementary mirror data. They serve to deepen the understanding of relevant points of view and issues.

Consultative **meetings**, which are meetings with experts and key informant actors, are usually held intermittently and are employed to obtain feedback and plan research actions. Key actors, such as board members, consultants and CEOs of the companies involved, as well as strategic partners, participate in these meetings.

In addition, **separate parallel workshops** can be held in order to analyze problems and raise possible solutions. These meetings bring together segmented groups, such as producers, specialized consultants and CEOs of supplier companies, allowing for a more in-depth analysis according to the specificities of each group.

Finally, the **entertainment-education** method can be used with variable frequency, according to interest. Here we can include theater and documentaries. Its purpose may be, for example, to promote awareness about a certain problem and the need for engagement. This strategy often reaches a diverse but less broad audience than that of social media and mass media.

Some examples of the use of alternative communication methods in an CL include, for example, the use of social media in an intervention carried out in Finland, in the urban landscaping sector. This intervention aimed to develop ways to prevent the entry of invasive pests. Social media were used to create a community of home gardeners and raise awareness of the risks and impacts caused by the introduction of pests, as well as to disseminate the necessary precautions to prevent their spread.

Another example is the use of entertainment-education, more specifically the use of theater, in an intervention aimed at the development of the tomato production chain in Finland. The theatrical play aimed to disseminate the results of the research to a wider audience, composed mostly of tomato producers and other actors in the production chain. The theater was used as a playful and didactic way to present the problem of low tomato quality to those who did not participate directly in the intervention. The staging highlighted the contradictions faced by farmers and the need to improve product quality as a survival strategy for the sector.



Figure 5. Image of a play of the intervention in the tomato production chain, in Närpes, Finland.

Another example of the use of alternative communication methods was the production of a documentary in the context of an intervention in the public cleaning activity (Coluci et al., 2020). In this case, the problems faced by the sweepers required society to learn about the proper management of waste, in addition to promoting a greater appreciation of the work performed by these professionals. For this, the documentary *Varredeiras* was produced, directed by Beto Novais, which gives voice to the sweepers, allowing them to report their experiences, challenges and reflections on the activity they perform.



Figure 6: Image from the documentary *The Daisies. Sweepers | documentary*

7. Strategy 6 – Create parallel learning spaces

The strategy of creating parallel learning spaces overlaps with the strategies already mentioned. The role of these spaces, also understood as learning platforms to facilitate learning and the implementation of a CL, is already recognized (Lopes et al., 2021). Such learning platforms consist of temporary learning activities that support the CL. Negotiation and training of participants, discussed earlier, are examples of these platforms. As learning activities, these platforms are composed of communities that conduct actions mediated by instruments and directed to a common object. Among these platforms or spaces, three spaces stand out that I have not yet commented on, which are spaces for: strategic planning, methodological planning and operational planning.

Strategic planning consists of aligning the intervention with other development actions and with the objectives of the organization in which the activity is inserted. Generally, this planning involves strategic decision-makers in the organization, such as politicians, CEOs, directors and managers. This type of planning is part of what we previously called negotiation.



Methodological planning consists of organizing issues related to the method, such as which mirror data to collect, which models and concepts to use as a second stimulus, formulation of hypotheses about contradictions and identification of development possibilities, as well as which learning actions to promote during the sessions. This planning takes place with researchers and is sometimes called a group of experts.

The operational planning group has the function of organizing the step-by-step of the sessions, dealing with more practical issues, such as who to invite, how to engage the participants and how to adapt the method and stimuli to the culture of the activity. It is a space that usually involves three to five participants in the sessions, but in the most recent experiences of the group, we chose to leave this space open for participants who wanted to get involved. In general, the most proactive and engaged participate. This space can also be used by participants to clarify concepts and ideas, as well as to develop proposals that arise throughout the sessions.

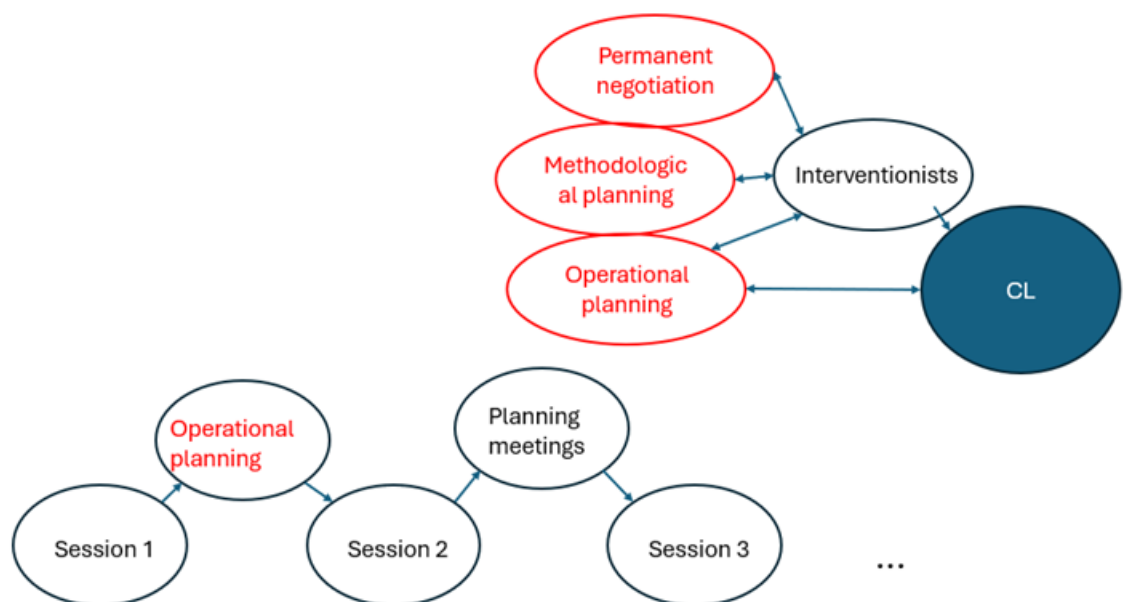


Figure 7. Representation of the three planning groups—strategic, methodological, and operational—and their relationship to the interventionist and Change Lab sessions.

8. Conclusions

This paper aimed to present strategies to enhance the sustainability of learning generated through a Change Laboratory intervention. In this context, sustainability refers to strengthening the durability, consolidation, and dissemination of the newly designed and implemented activity system.

The proposed strategies seek to foster participants' agency and equip them to autonomously carry forward the learning actions without the constant presence of the researcher. The intention is to transform expansive learning, which in the CL is initially temporary, into a more permanent activity. To achieve this, the efforts focus not only on promoting learning actions but also on creating the elements of the system, developing subjects capable of using the tools of Activity Theory, adapting intermediate instruments to the specific activity under analysis, and engaging strategic decision-makers within the community to ensure support in terms of human



and financial resources. In addition, these strategies include combining CL with other intervention methods—such as mass communication, theater, social media, and documentaries—to mobilize neighboring communities and expand the solutions developed to other contexts.

This paper did not seek to present universal tools or ready-made solutions, but rather general strategies, since each intervention takes place in a distinct socio-cultural and historical context and must therefore be adapted accordingly. Other strategies may certainly be combined to establish a sustainable learning activity. Further knowledge is particularly needed regarding how to promote the socio-spatial expansion of the newly created models.

About the author

Marco Antonio Pereira Querol is an Associate Professor in the Department of Agronomic Engineering at the Federal University of Sergipe (UFS), teaching Rural Sociology, Rural Extension, and Social Movements. His research focuses on Innovation, Sustainability, Organizational Learning, Cultural-Historical Activity Theory, and Interventionist Methodologies, particularly the Change Laboratory.

Email: mapquero@gmail.com

ORCID: [0000-0003-3815-1835](https://orcid.org/0000-0003-3815-1835)



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