

Construction and Application of the Flipped Inclusion Framework: The Open Impact Case

Alba Maria Gallo ¹, Silvia Tornusciolo ², Ubaldo Comite ³ and Tonia De Giuseppe ^{3,*}

¹ Università Giustino Fortunato; a.gallo2@unifortunato.eu

² Università Mercatorum; silvia.tornusciolo@gmail.com

³ Università Giustino Fortunato, u.comite@unifortunato.eu

⁴ Tonia De Giuseppe, t.degiuseppe@unifortunato.eu

* Correspondence: a.gallo2@unifortunato.eu

Abstract: This study examines Open Impact, a university spin-off operating in applied research and social impact assessment, with the aim of understanding how organisational learning can be supported in interdisciplinary, knowledge-based contexts. The analysis is grounded in the Flipped Inclusion (FI) framework, which conceptualises organisations as learning ecologies. Empirical evidence is drawn from qualitative semi-structured interviews with the founders and the analysis of organisational documents. The findings reveal implicit cognitive and collaborative processes, as well as challenges related to semantic alignment and interdisciplinary communication. The application of the FI framework makes these dynamics visible and supports reflective organisational learning without altering the organisation's identity. Overall, the study highlights the relevance of Flipped Inclusion as a methodological and interpretive tool for hybrid and cooperative organisations.

Keywords: Flipped Inclusion; Organisational learning



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1. Introduction

This study analyses Open Impact, a university spin-off operating in applied research and digital development, through the Flipped Inclusion (FI) framework, which conceptualises organisations as learning ecologies shaped by cognitive, relational, and communicative processes. Drawing on organisational documents and qualitative interviews with the founders, the analysis identifies latent cognitive, semantic, and collaborative challenges embedded in interdisciplinary and cooperative work practices. The findings show how FI supports reflective organisational learning and facilitates the integration of academic knowledge, professional practice, and organisational development within hybrid, knowledge-based organisations.

2. Analytical Description of Open Impact

The Materials Open Impact was created in 2019 as a research-centred organisation motivated by social cause and it was the winner of a competitive call

held by the Lazio Region (Fitzpatrick, 2024). The founders explained that the idea of the project was to provide a tool with high reliability to the area of social impact assessment where methodological complexity, divided knowledge and unbalanced technical ability were the barriers in making decisions for the organisations (De Giuseppe et al., 2020). The founders in the PRE interviews painted the picture of the organisation's startup as the combination of intellectual curiosity and civic duty that instead of purely entrepreneurial ambition drove the development of the organisation.

Founder A said:

"We imagined Open Impact as a deeply participatory project, oriented towards a model inspired by cooperative principles."

This reflective piece simplifies the primary intention: the creation of a workplace where knowledge production, technological design, and strategic consulting would, instead of being hierarchical or separated by departments, rely on shared responsibility, mutual learning, and discussions.

This organisational structure is a reflection of the complex mission (De Giuseppe et al., 2020).

The PRE interviews indicate that interdisciplinarity is both an asset and an obstacle in the development process.

The founder B confessed,

"The most critical aspect has been finding digital skills..."
and then continued,

"The main difficulties concern communication and internal alignment. The digital team uses a technical language..."

The positions are not strictly attached to a department, thus a person can be doing different tasks at the same time, and, therefore, support in research, design, communication, or implementation (De Giuseppe et al., 2020).

Organisational documentation and PRE interviews frequently highlight another essential aspect of Open Impact's progress: the establishment of a proprietary benchmarking database that connects organisational operations to the Sustainable Development Goals (SDGs).

2.2 Pedagogical Relevance of Open Impact

Open Impact with its interdisciplinary team, cooperative attitude, and project-based working method perfectly matches the Flipped Inclusion intervention. The PRE phase has uncovered the existence of implicit cognitive processes, unarticulated interpretative frameworks, and unstructured collaborative routines which, though not dysfunctional, are still largely invisible (De Giuseppe & Francese, 2024). It depicts a modern work setting of complexity, interdisciplinarity, and social purpose – the very context for which the FI model was conceived.

3. Rigorous Definition of the Pedagogical Problem

This The PRE phase of the inquiry, comprising the analysis of organisational documentation, observing internal processes, conducting a questionnaire survey, and performing semi-structured interviews with the two founders, revealed that the issues faced by Open Impact were not linked to poor management, lack of

motivation or cultural conflicts. Instead, they were related to the ways of learning and teaching, that is, they were focused on the production, interpretation, communication, and application of knowledge in a multidisciplinary workplace.

The PRE interviews and observational notes revealed one surprising and even more than that amazing thing, which was the heavy reliance of Open Impact's internal functioning on unstated, undocumented, and unexamined collective knowledge.

Founder A explained this phenomenon very clearly:

“There is a need to make the cognitive and collaborative processes that drive work more visible and formalised.”

The assertion underlines the teaching aspect of the challenge, and the cognitive effort was not seen either—the decision-making, the interpretative techniques, the epistemic beliefs, and the meaning-making that helped the teamwork were all invisible (Jiang et al., 2025). Founder B described this as one of the company's characteristics:

“Before, roles were fluid...”

The Open impact's capability is basically the perfect integration of their principles and the multifaceted approach to their mission. Employees formulate their own rules of thumb—like how to initiate a project, who should take over the task, how the decision is usually made—which may not be communicated or jointly analysed. In the end, such implicit rules turn into organisational routines that are not easily perceived.

The PRE phase has also revealed the founders' claim of “behind-the-scenes” work: when decisions are made at the meta-level, there is interpretive negotiation and unspoken coordination efforts that are not acknowledged as formal labor.

The second educational issue that came up in the PRE phase was linked to the communication within the team, not by the conflict between the persons involved or inadequate sharing of information, but by the misalignment of the meanings of the terms (Al-Samarraie et al., 2020). The multi-disciplinary character of Open Impact forces the employees to use multiple different languages of the profession at the same time, such as statistics, policy discussions, digital development, qualitative research, user experience, and administrative procedures, for instance.

Founder B did not hide at all this problem and said clearly:

“Internal communication is complex.”

and then clarified:

“This semantic distance generates misunderstandings...”

It was also indicated by PRE interviews that the use of technical language affected the interaction between the various departments of the organisation. The comment of Founder B was as follows:

“The digital team uses a technical language...”

So, the difference in language use was not only horizontal (different areas of workers) but also vertical—the control over some fields was greater because of a language. When meanings are each drawn in a different quantity, the participation becomes tiered without the parties even noticing it (De Giuseppe et al., 2020).

As Founder B said:

“This semantic distance generates misunderstandings, especially when content has to be translated into digital tools.”

The operational aspect is the communication problem in this instance: a change in the meaning may lead to misunderstandings of the design, inconsistencies in the data modelling, incorrect assumptions fed into the programming, and ultimately, the organisation will be less effective. The issue is one of education rather than communication: the staff of the organisation has to acquire the skill to cross the epistemic boundaries when they are speaking to one another.

3.2 Why These Problems Require Flipped Inclusion

The educational dilemmas of tacit cognitive processes and semantic fragmentation are interdependent, as disciplinary crossing amplifies the role of unarticulated knowledge in organisational settings (Jiang et al., 2025). The FI framework addresses this condition by explicitly aiming to surface hidden organisational knowledge, treating tacit practices and implicit cognitive frameworks not as inefficiencies but as learning opportunities. FI conceptualises communication as a process of shared meaning-making, supported by tools such as concept mapping, collective reflection, structured dialogue, and translation devices, which enable semantic alignment while preserving disciplinary diversity. This approach is consistent with Open Impact’s cooperative principles of participation and shared responsibility and provides the structured method necessary to make latent organisational dynamics visible, discussable, and improvable.

4. Theoretical Foundations of the Flipped Inclusion Framework

Authors The educational problem that came to light during the PRE phase required an intervention that would make people's different areas of expertise across the organisation up-to-date and thus lead to the establishment of reflexive collaborative practices. The FI framework was not viewed as an imposition of external training, but rather as a reorientation of the organisation's epistemology and methodology through which it will be transformed into a deliberate learning environment. FI is a model that in three important ways radically alters the traditional professional development models (Lencastre et al., 2020). The first way, it opposes is the principle of practice and learning hierarchy.(De Giuseppe & Francese, 2024). The framework comprises EIPE, a collection of four iterative and recursive phases—Explore, Identify, Produce, and Evaluate. The Explore phase focuses on revealing implicit perceptions, assumptions, routines, role interpretations, and invisible cognitive work; Identify structures these insights by organising emergent patterns and establishing a shared conceptual language; Produce translates the shared understanding into operational tools such as documents, workflows, cooperative practices, semantic conventions, and decision-making devices. The FI framework thus functions both as a pedagogical tool and a cultural arena, reinforcing participation, dialogic engagement, and shared responsibility. Its application to Open Impact required methodological rigor to

avoid disrupting organisational operations or imposing external interpretive categories, and was therefore designed in accordance with the international ergonomics standard ISO 6385:2016 for workplace system design. The interviews provided essential insights into the organisation's epistemology.

The Founder A said:

"There is a need to make the cognitive and collaborative processes that drive work more visible and formalised."

The statement pointed out very clearly that the situation with teaching was mainly visibility, not skill and thus confirmed the use of FI as an intervention framework.

A PRE questionnaire was administered to capture employees' subjective organisational experience across five domains—role clarity, process understanding, collaborative fluidity, semantic accessibility, and competence alignment—establishing a baseline prior to the intervention. Consistent with the human-centred approach of ISO 6385:2016, privileging human interpretation over procedures (Yenen, 2025), the EIPE process was developed using Open Impact's own language and practices, without introducing external models. At the end of the day, the methodical structure was intentionally dialogic. Each phase of EIPE was characterised by partners' reflections, discussions of interpretations, and feedbacks that not only allowed but also encouraged the organisational members to build together the meaning instead of just receiving the analytical conclusions.

5. Construction of the FI-Based Intervention Protocol and conclusions

The Open Impact project necessitated the formulation of the FI intervention protocol. This was a process that required not only epistemic but also organisational astuteness (De Giuseppe et al., 2020). FI is not to be seen as a common instructional model that could be used in the same way throughout; it is rather a flexible pedagogical framework which must be built in very close connection with the cognitive environments, semantic structures, and interpersonal dynamics of the hosting organisation. Hence, the protocol that was created for Open Impact was directly drawn from the PRE diagnostic stage, and the interpretive patterns defined in the interviews (Yenen, 2025), the semantic and collaborative tensions identified during the initial exploration, and the personal impressions noted in the PRE questionnaire.

As a result, the FI protocol needed to reach three interconnected ends:

Permit the hidden processes to be seen thus enabling the employees to collectively raise up tacit knowledge, uniformalised routines, and unspoken decision-making strategies.

The PRE interviews provided several quotations which were directly cited and utilised as the main bases for the formation of policy activities. For example, A's remark as a Founding Member:

"There is a need to make the cognitive and collaborative processes that drive work more visible and formalised."

after that, the iterative process for the Explore and Identify phases got grounded on the results of this experiment. Likewise, Founder B's thoughts on the lack of coherence between the different meanings—

“Internal communication is complex.”

“The digital team uses a technical language...”

“This semantic distance generates misunderstandings...”

—these were the main concepts that led to the creation of activities purely for semantic mapping and translation.

The PRE questionnaire, which demonstrated different trends concerning role clarity, process comprehension, and communication accessibility, was the basis for developing the protocol.

The FI protocol was implemented in a process that was situated, dialogic, and recursive, thus closely connected to Open Impact's day-to-day activities. The intervention was not considered a separate training event, rather, it was intentionally interspersed throughout the real organisational moments, existing project cycles, and operational routines.

The application was done according to the four EIPE phases, but in practice these phases were not linear. Rather, the employees moved from exploration, structuring, producing, and evaluating in a manner that was iterative and reflected the recursive development of organisational understanding. This section showcases the situated implementation of FI, including the verbatim accounts that were heard in POST interviews, the PRE–POST changes that were confirmed by the questionnaire results, and the dialogic dynamics that were detected in the survey responses.

6.1 The EXPLORE Phase in Practice: Surfacing Cognitive and Semantic Invisibility

The Explore phase was activated by the regular collaboration, project handover, and internal meeting sessions. It all began with a question to employees, asking them to tell how they normally perform their tasks. The maps were completely different, not because the different persons had different opinions, but because their internal reasoning had never been externalised or compared to others. For example, a member of the digital team indicated the technical steps they always took when updating with new features (De Giuseppe & Francese, 2024), while a researcher started with the development of the concept and user needs assessment.

Furthermore, the Explore phase has revealed the existence of semantic tensions. The collection of specific terms from various disciplines created a very colorful picture of the vocabularies of the employees. "Impact chain," "ontology," "user story," "statistical proxy," "scope note," and "sprint backlog" were all together on the common semantic board. One of the participants during the talk said, "I know what these words mean in my context, but I don't know what they mean in other contexts." This confession was very important. It supported the second educational challenge set up in the PRE interviews: the use of discipline-specific language was unintentionally creating misunderstandings.

The outcomes were in accordance with the PRE interviews commentaries of Founder B:

“Internal communication is complex.”

“This semantic distance generates misunderstandings...”

“The digital team uses a technical language...”

Thus, the Explore phase revealed the cognitive and semantic routines of the company that were previously invisible.

6.2 The IDENTIFY Phase in Practice: Building Shared Cognitive and Semantic Structure

As soon as the hidden knowledge became manifested, the next step was to categorise and interpret it. During the Identify stage, the raw insights were turned into well-arranged teaching materials.

Then this habit was considered as one of the core elements of the “Cognitive Operating System” that was formed during the Produce phase.

The process of semantic organisation was challenging due to its complexity. During the Explore phase the semantic board was divided into clusters and a semantic board was done. The employees through these discussions were able to discuss meaning very clearly, to argue and to explain what certain terms were referred to in their area and how those meanings were in the context of other areas (De Giuseppe et al., 2020). A participant in the POST interview stated that the process resulted in “a common map that allows us to speak from our area but be heard at the same time.” The Identify phase was further linked to the PRE questionnaire outcomes of PART C. The outcomes provided a quantitative backing to the interpretive discussions.

The employees took these figures as the baseline and placed their qualitative insights on top of that.

6.3 The PRODUCE Phase in Practice: Co-Constructing Organisational Tools

The Produce phase was fruitful and the results were concrete, transforming the cognitive and semantic understanding into practical organisational aids. These aids were not imposed from outside but rather created in unison through the use of FI’s collaborative technique.

Out of the various results, three of them were identified as the most important ones:

- (1) The “Cognitive Operating System” (COS)
- (2) The Interdisciplinary “Translation Cards”
- (3) FI-Aligned Workflow Templates

The POST interview reflections in PART B emphasised the transformative nature of the outputs. One of the employees remarked that, “For the first time, I feel like we have a shared structure that reflects how we really think and work—not a template imposed from above.”

6.3. The EVALUATE Phase in Practice: Measuring Cognitive and Semantic Transformation

The evaluation was executed in a quantifiable manner through PRE–POST comparison (PART C), structured reflection, and POST interviews. The PRE–POST questionnaire results showed, first of all, that there was a positive change during the intervention, and the employees’ perceptions became clearer, more aligned, and more collaborative by the end of the process.

The quantitative evidence was backed up by qualitative testimonies. One participant said: “I now understand how others think, not just what they do.” Another one pointed out: “The process is clearer; the interaction is easier.”

POST data, in contrast, suggested that FI did not change the company's core values but instead, highlighted them by providing cognitive and semantic support.

One of the most important characteristics of the intervention was its alignment with the natural rhythm of the organisation. FI did not disrupt the workflow but rather helped the workers to master the daily tasks through teaching methods. The meetings were transformed into interpretative exercises; the planning of the project became a chance for semantic agreement; the discussions were sites for organisational learning. The contextuality made possible the knowledge produced to be real, relevant, and immediately usable.

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