

Reimagining School Visions through Design Thinking for Transformative Educational Leadership

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Abstract: In the post-digital educational landscape, this study explores how school vision functions as a generative and epistemic device for professional learning and organizational transformation. Drawing on the collaboration between INDIRE and the municipality of Rho (Milan), the research investigates how Design Thinking (DT) supports schools in co-constructing authentic, inclusive, and actionable visions aligned with their educational goals. Using a design-based qualitative approach, six schools have been engaged in iterative cycles of empathizing, defining, ideating, prototyping, and testing. The findings show that vision-building operates as a form of collective and situated creativity, enabling educators to reframe tensions, articulate shared values, and design context-sensitive strategies. DT also fostered transformative and distributed leadership practices grounded in care, dialogue, and coherence, extending beyond individual schools to create community alliances. Integrating these visions into institutional frameworks (PTOF, RAV, PdM) proved to be a critical act of strategic sense-making rather than a bureaucratic exercise. The study argues that vision-making through DT redefines innovation as a relational and reflective practice, positioning schools as living systems capable of imagining and enacting sustainable futures.



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1. Theoretical Background. School Vision, Creative Competence and Transformative Leadership

In the current post-digital educational landscape, the concept of *school vision* emerges as a generative device capable of orienting pedagogical practices, sustaining professional creativity, and enabling intentional, future-oriented action. Drawing

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from the collaboration between INDIRE and the Municipality of Rho (MI) in developing in the territory a form of “*extended school*”, this contribution explores the theoretical foundations and transformative potential of working with school visions, highlighting how collaborative and reflective methodologies can support educational leaders and professionals in co-constructing authentic, shared, and actionable visions of their institutions.

School vision should not be understood as a rhetorical artifact or a mere top-down declaration. Rather, it constitutes a *collective and intentional projection of a desirable future*, synthesizing the educational intentions, foundational values, and transformative aims of the institution (Hargreaves & Shirley, 2009). In Fullan’s (2007) perspective, vision is never imposed but co-constructed through dynamic processes of sense-making, engaging all members of the school community in building shared meanings. It operates as both a symbolic and strategic system that enables schools to position themselves as *active agents of change* rather than passive recipients, becoming a critical foundation for professional identity, pedagogical coherence, and educational innovation.

An effective school vision is anchored in its capacity to mobilize the agency of professionals, their intentionality, responsibility, and creativity within their specific contexts. The emergence of vision through collaborative and structured reflecting processes is a key factor for educational innovation, as Sawyer (Sawyer & Henriksen, 2024) demonstrates. School vision becomes a *relational space of co-creation* where professionals, students, families, and local communities collectively shape imaginaries that orient educational action toward socially just and sustainable futures. Vision thus transcends its status as a planning document to become a cultural and epistemological infrastructure for learning ecosystems capable of navigating complexity.

However, supporting professionals in this process requires more than conventional training or capacity-building initiatives. It demands cultures of reflective learning and shared inquiry, enabling educators to navigate and shape complex systemic transformations. Within this horizon, two key dimensions, *creative competence* and *transformative leadership*, emerge as the cultural and epistemological foundations for sustaining the co-construction of school vision and for transforming schools into adaptive, imaginative, and resilient learning organizations.

1.1 Vision as a Strategic Lever for School Governance

The school’s vision represents a generative element capable of guiding strategic choices and ensuring coherence between pedagogical intentions and daily practices. However, it cannot be conceived as a static or symbolic statement, but rather as a dynamic construct, continuously reinterpreted and enacted within the professional community (Fullan, 2020). The vision thus assumes the function of a “value compass” (Senge, 1990), capable of guiding processes of innovation, sustainability, and continuous improvement, acting as both an identity glue and a strategic orientation for the entire school organization.

The definition and translation of the school’s vision within the institution’s strategic documents constitute a crucial point for school governance and for defining the educational identity of a school. As highlighted by ministerial guidelines, tools such as the Self-Assessment Report (RAV), the Three-Year Educational Offer Plan (PTOF), and the Improvement Plan (PdM) should not be interpreted as mere bureaucratic obligations, but as devices for collective reflection and shared planning,

aimed at promoting a systemic and integrated vision of educational and organizational action.

Building a shared vision for the school requires a participatory and inclusive approach, which recognizes the plurality of actors involved in school life: leaders, teachers, students, families, and community representatives. As Bolman and Deal (2017) emphasize, effective leadership is a relational and distributed process in which decision-making power and strategic responsibility are spread throughout the organizational network. In this framework, the school is conceived as a “community of practice” (Wenger, 1998), where the construction of educational meaning results from social negotiations and shared learning.

The adoption of participatory methodologies—such as focus groups, design thinking workshops (as proposed to schools in the municipality of Rho), open consultations, and exploratory surveys—allows the collection of keywords, values, and shared expectations, translating them into a concise and inspiring statement. These co-construction processes foster the emergence of a vision that does not merely define an abstract ideal but becomes an operational and guiding device for educational and organizational practices.

Instrumental functions, coordinators, and project teams act as nodes of interconnection and innovation within the school, not merely as executors of directives, but as promoters of transformative processes oriented toward coherence between the vision and operational planning. As Fullan and Quinn (2016) observe, coherence does not arise from mere formal adherence to a strategic plan but from the dynamic alignment between organizational culture, educational practices, and shared objectives.

Only when the vision becomes a shared asset and an actual reference for educational and managerial choices can the school truly orient itself toward the future it intends to build. In this perspective, the vision is not a slogan or rhetorical statement, but a daily commitment, a guiding direction that fosters belonging, coherence, and continuous improvement. Ultimately, it represents the convergence point between the ethical and strategic dimensions of educational action, enabling the school to function as an intentional learning community, capable of responding with flexibility, innovation, and responsibility to the challenges of contemporary complexity.

1.2 Educational Leadership and the School as a Learning Organization

Over the past two decades, a new conception of the school principal has progressively emerged in Italy, understood not merely as an organizational leader inspired by public administration management models, but as an educational leader, promoter of innovation, professional development, and the construction of educational alliances between school, family, and community (Nicolosi, 2024; Mulè, 2015). National and international literature (Cocozza, 2004; Bezzina & Paletta, 2022; Sergiovanni, 2000) emphasizes the intrinsically educational nature of school leadership, rooted in a systemic and value-based vision. Principals are expected to operate not only within the organization but also within the social fabric, promoting networks and partnerships that expand the scope of educational action. In this perspective, leadership assumes a strategic function, aimed at guiding practices, inspiring the community, and fostering professional co-responsibility (Fullan, 2020; Harris, 2013).

According to Paletta (2015), school principals are key actors in the improvement and overall effectiveness of educational institutions. The scientific debate no longer revolves around whether school leadership makes a difference, but how it produces change: through which practices and mechanisms it sustains the quality of teaching and learning. As a complex system, the school requires multiple actors who contribute synergistically to its functioning and growth. Research highlights the effectiveness of distributed leadership models based on co-responsibility, trust, and co-construction (Leithwood et al., 2008).

No principal can act as a “lone commander”: sustainable improvement arises from a professional community that shares goals, values, and strategies. However, in the Italian school system, intermediate figures (assistant principals, project coordinators, and department or school-level heads) are generally temporary and defined more by workload than by skills or professional responsibilities. Unlike Anglo-Saxon systems, where structured career-level middle management exists, these roles do not constitute structured professional pathways. Paletta (2020) identified up to 33 different assigned functions, and in a medium-sized comprehensive institute, over 50 positions can exist, generating complex and fragmented organizational charts without a clear functional hierarchy (Orsi, 2024).

To overcome these challenges, a model of “light” leadership is proposed, based on a “servant hierarchy” rather than dominance. Inspired by the servant leadership paradigm theorized by Greenleaf (1970), this approach places the well-being and growth of individuals at its center, valuing collaboration and shared responsibility. The leader thus becomes a facilitator who promotes sustainable and motivating professional environments, where leadership is measured not by the power exercised, but by the ability to generate development and cohesion within the school community.

In this regard, the Learning Organization paradigm (Senge, 1990) provides a useful interpretive framework for understanding learning and innovation processes in schools. The learning school is a living system, capable of adapting to changes and regenerating itself through collective reflection and knowledge sharing (Watkins & Marsick, 1993; Mulford, 2005). In such contexts, investment in human capital represents the primary lever for improvement, as teachers’ professional growth drives the growth of the entire organization (Hargreaves & Fullan, 2012).

Within a Learning Organization, leadership is not an individual prerogative, but a shared responsibility expressed through collaboration among different professionals. The distributed leadership model (Spillane, 2008) is based on the idea that educational influence and decision-making power should be broadly distributed, valuing each member’s competencies. Similarly, the shared leadership perspective emphasizes the relational dimension of educational guidance, highlighting mutual trust, co-responsibility, and the construction of a common purpose (Pearce & Conger, 2002; Carson, Tesluk, & Marrone, 2007).

While distributed leadership emphasizes the structural distribution of roles, shared leadership highlights interactive dynamics based on reciprocal influence and shared learning. Both converge in promoting a participatory, reflective organizational culture oriented toward professional empowerment (Harris & DeFlaminis, 2016; Morini & Nencioni, 2022). Empirical evidence shows that schools characterized by distributed and shared leadership are more innovative and effective, thanks to active

teacher involvement in decision-making and the consequent growth of their sense of self-efficacy (Leithwood & Jantzi, 2000; Harris, 2013).

Ultimately, the learning school is a complex ecosystem in which leadership, collaboration, and reflection intertwine in a continuous process of organizational and professional development. It is not merely a place for knowledge transmission but an intentional community of practice that constructs, shares, and regenerates knowledge and values, nurturing the quality and sustainability of the educational system.

1.3 Professional Creativity as a Core Competence

In educational research, creativity has long been described as a desirable but peripheral quality—an individual talent or an aesthetic disposition rather than a professional necessity. However, recent scholarships have repositioned creativity as a core professional competence essential for navigating increasingly complex and uncertain environments (Mumford et al., 2013; Ruscio & Amabile, 1996). Professional creativity entails the ability to reframe problems, connect seemingly unrelated ideas, and design original yet feasible responses to contextual challenges. It involves not only divergent thinking but also *reflective integration*—the capacity to translate intuition into purposeful, structured action.

From a systemic perspective (Csikszentmihalyi, 1999), creativity is not an isolated or spontaneous event but the emergent property of interactions among individuals, domains of knowledge, and organizational cultures. Teachers and school leaders generate creative practices when their professional ecosystems legitimize risk-taking, experimentation, and dialogue. In such contexts, creativity evolves into distributed agency rather than a manifestation of individual genius. As Beghetto and Kaufman (2014) contend, the most relevant educational form of creativity is *small-c creativity*: the everyday adaptive processes that cumulatively transform teaching and learning.

Creative competence thus operates at the intersection of cognition, ethics, and community. It includes awareness of one's creative potential (*creative metacognition*), motivation to innovate, and the social intelligence needed to collaborate and share ideas. It is inherently relational, enacted through conversation, reflection, and co-design. As emphasized by the OECD (2023), creative competence thrives within organizational climates marked by trust, openness, and intentional flexibility. Schools that cultivate these conditions become laboratories of professional imagination, where creativity is simultaneously the object, the process, and the outcome of collective learning.

Supporting educational professionals in building shared visions therefore requires cultivating creativity as a systemic competence rather than treating it as an optional personal attribute. Creativity functions as a *mediator* between the value-oriented dimension of vision and its enactment in transformative practices. In this sense, it is understood not merely as inventiveness, but as a professional resource rooted in situated knowledge, collective sense-making, and organizational learning (Baruah & Paulus, 2019). Creative agency enables professionals to read problems divergently, generate possibilities beyond the obvious, and facilitate the emergence of new connections and ideas—sustaining vision as an open, dynamic, and shared construct that resists closure and fosters critical inquiry.

Ultimately, professional creativity constitutes both a *means* and a *manifestation* of educational agency. It enables educators to transcend compliance with prescriptive reforms and to act as designers of their own professional evolution. In doing so, it

repositions teaching as a generative, knowledge-producing profession—one that does not merely apply knowledge but continuously creates it within complex and dynamic educational ecosystems.

1.4 Transformative Leadership and the Ethics of Educational Change

In parallel with the evolving conception of creativity, theories of leadership in education have progressively shifted from hierarchical models of control and efficiency toward paradigms centered on participation, meaning-making, and ethical transformation. Transformative leadership, while related to but distinct from *transformational leadership* (Bass et al. 1985;), foregrounds the moral and relational dimensions of leadership practice. It emphasizes *agency through relationships*, *justice through participation*, and *innovation through dialogue* (Shields, 2010).

Within this framework, educational leadership is reframed as transformative leadership—an approach grounded in ethical intentionality, participatory sense-making, and the capacity to sustain distributed creativity across professional communities. Leadership becomes a distributed generative action that legitimizes exploratory processes, connects strategic vision with operational practice, and supports transitions from ideas to implementation within complex organizational ecologies. It demands courage to challenge existing paradigms, host creative conflict, and foster deep cultural restructuring—positioning leaders not as managers of existing systems but as facilitators of institutional imagination and transformation.

In complex educational systems, leadership cannot rely on positional authority alone. As Heifetz (1994) and Fullan (2020) observe, adaptive challenges—those involving conflicting values, uncertainty, and systemic interdependence—require leaders who can facilitate collective learning and navigate ambiguity. Transformative leadership thus becomes a pedagogical practice in itself: it teaches organizations how to learn, adapt, and innovate in response to evolving contexts. Such leadership operates through three interdependent dimensions: Visioning – articulating compelling, shared narratives of the future that mobilize collective commitment; Relational mediation – cultivating trust, empathy, and participatory structures that sustain collaboration; Reflective action – transforming vision into sustained, context-sensitive innovation.

These dimensions correspond to what Fullan (2020) defines as *deep learning leadership*, in which coherence-building and creative disruption coexist as complementary forces. Transformative leaders do not merely manage change; they host it, creating the psychological and structural conditions through which others can exercise agency and creativity.

In the Italian educational landscape transformative leadership manifests as distributed professionalism. Here, coordinators and *education teams* act as boundary-crossing facilitators, linking micro-level pedagogical experimentation with macro-level organizational development. Leadership, in this sense, becomes a collective infrastructure, enabling innovation to emerge from the bottom up while remaining coherently aligned with institutional vision.

At its ethical core, transformative leadership is sustained by an emancipatory and inclusive vision of education. As Shields (2010) asserts, its goal is not simply organizational effectiveness but *equity with meaning*. The transformative leader nurtures hope, trust, and imagination as professional virtues, guiding educational communities to envision schools as agents of social, cultural, and moral renewal.

1.5 Mutuality: The Co-evolution of Creativity and Leadership

When examined together, creative competence and transformative leadership reveal a mutual and recursive relationship that constitutes the dynamic core of educational innovation. Creativity generates possibilities, while leadership legitimizes and sustains them; creativity fuels vision, while leadership provides coherence and continuity. Each dimension depends on and reinforces the other, forming an interdependent cycle that enables schools to evolve as adaptive, learning organizations.

This synergy between creativity and leadership is intentionally nurtured through design-based professional development. Educators learn to practice imaginative leadership, using creative inquiry not only to solve problems but to construct shared meaning and direction. Creativity thus becomes a form of ethical reflection—an act of envisioning and care—while leadership evolves into a pedagogy of collaboration and collective sense-making. Both are sustained through reflective dialogue, iterative experimentation, and a shared commitment to reimagining the school as a living, evolving institution.

Ultimately, the co-evolution of creative competence and transformative leadership defines an epistemology of professional transformation. It positions schools as living systems of imagination and responsibility, where vision is collectively authored and agency is relationally enacted. The interplay between the two constructs points to a deeper pedagogical principle: that transformation in education does not emerge from isolated acts of innovation or authority, but from the sustained interaction of creative inquiry and ethical leadership within communities of practice.

This interdependence, however, raises a crucial question for both research and practice: *How can educational systems effectively support the mutual development of creativity and transformative leadership in processes aimed at identifying and co-constructing a shared school vision?* Through design-based, participatory approaches, teachers learn to prototype, visualize, and iterate solutions grounded in collaborative reflection. In these processes, creativity is not a spontaneous occurrence but a structured, dialogical mechanism through which professional communities co-construct innovation. It becomes both the driver and the expression of professional learning, linking the imaginative dimension of vision of school with the operational demands of practice.

2. Methods and Instruments

The research was conducted within the Urban Sustainable Development Strategy “Bridges, Hinges and Governance Models for Urban Regeneration”, promoted by the Municipality of Rho (Milan Metropolitan Area) under Action 5 – “Beyond Teaching: An Open and Distributed School.”

The initiative aimed to transform schools into civic laboratories that extend learning beyond institutional boundaries, connecting formal education with community-based innovation, and promoting what is conceptualised as an “extended school” (Mangione et al., 2025). Grounded in the theoretical premise that creativity and transformative leadership jointly sustain the emergence of shared educational visions, the study addressed a single overarching research question (RQ):

How can Design Thinking support schools in collaboratively developing a pedagogical plan for an “extended school” that translates shared visions into coherent and actionable strategies within a local educational ecosystem?

To address this question, the study—configured as an exploratory case study (Yin, 2018)—adopted a qualitative and participatory design grounded in the principles of Design Thinking (Brown, 2008) (DT) and Design-Based Research (Collins et al., 2004). These methodological frameworks are particularly suited to educational innovation, where change emerges through iterative cycles of reflection, experimentation, and collective sense-making.

2.1 Participants and Data Collection

A total of six schools located in the Municipality of Rho (four state and two private schools) participated in the study. The schools were selected based on their involvement in the “Ponti Strategy” and their readiness to engage in an experimental and collaborative design process.

Each institution established a working group including school leaders, middle management staff, and teachers representing preschool, primary, and lower secondary levels, for a total of 14 participants.

The facilitation team consisted of three researchers and one doctoral student from INDIRE, together with representatives of the Municipality of Rho and a local organisation coordinating the broader visioning process.

The research was implemented between March and May 2025 through four iterative workshops (two online and two in person), corresponding to the main phases of the Stanford d.school DT model: Empathize, Define, Ideate, and Prototype (d.school, 2010; 2018).

The workshops combined synchronous and asynchronous modalities: Webex and Miro were used for online collaborative sessions, while Moodle served as a repository for documentation and reflection.

The data corpus comprised all artefacts generated throughout the process (digital boards, templates, written reflections, and facilitators’ notes), capturing participants’ design reasoning and evolving conceptualisations of the extended school.

2.2 Data Analysis

Data analysis followed an inductive and iterative procedure consistent with action research methodologies (Kemmis & McTaggart, 2005).

After each workshop, the facilitation team conducted affinity mapping to cluster emerging insights and identify recurrent patterns across schools, such as perceived needs, priorities, and directions for innovation. Analytical categories were progressively refined through member checking and collaborative reflection with participants. The process culminated in the drafting of a shared Vision Document, representing the collective synthesis of the workshops.

Triangulation among researchers, participants, and artefacts ensured the credibility, dependability, and transparency of the findings (Lincoln & Guba, 1985).

2.3 Design Thinking Framework

This subsection outlines the methodological rationale and tools employed within the DT process implemented in the study.

Building on the theoretical premise that creativity, empathy, and experimentation sustain collective transformation (Simon, 1969; Cross, 2011; Rauth et al., 2010), the DT process adopted is particularly suited to supporting schools in developing shared visions and translating them into coherent and actionable strategies.

DT, in fact, originates from the architecture and design disciplines (Rowe, 1991; Cross, 2011) and has been operationalised in frameworks such as the Stanford d.school model (d.school, 2010). Moreover, after finding applications in many fields, in recent years it has gained popularity in education (Rauth et al., 2010; Cross, 2023).

In particular, it can be understood as an application of participatory design (Björgvinsson, Ehn, & Hillgren, 2010), fostering a democratic and inclusive approach to educational innovation: it does not prescribe predefined solutions but rather activates co-design processes (Koh et al., 2015), involving school leaders, teachers, students, and families. Therefore, DT functions as a collaborative and reflective process, where educational ill-defined problems are addressed by heterogeneous groups and where collective sense-making enables context-sensitive innovation (Meinel et al., 2010; Cross, 2023).

In the framework of schools as community hubs, Cleveland et al. (2023) argue that the construction of a shared vision—articulated in common intentions, ideas, and desires—is a key condition for the effectiveness and sustainability of innovation projects.

In this light, DT proves to be an effective methodology for anchoring the school vision in clearly identified needs, thanks to its human-centred approach; for orienting towards future-oriented community aspirations; and for adhering to principles of coherence and sustainability through testing and prototyping—principles that align with the Extended School.

The methodological framework was structured according to the five phases of the Stanford d.school process (d.school, 2010), and the methods used in each phase were selected and adapted from the d.school Bootleg (d.school, 2018) to align with the educational aims of the concept of the Extended School.

While the research implemented only the first four DT phases (Empathize, Define, Ideate, and Prototype)—one per workshop—the fifth phase (Test) is planned as a follow-up exploratory case study. Moreover, to adhere to the iterative nature of DT, these phases should not be interpreted as a rigid sequence.

2.4 Phases and Tools

Phase 1 – Empathize: Exploring the lived experience of the school community through image check-in

The Empathize phase, implemented during the first online workshop, sought to elicit the perspectives, needs, and values of key school stakeholders. The Image Check-in was conducted online via Webex and Miro: participants selected an image symbolising their perception of the extended school and briefly explained its meaning. This activity functioned as an entry point for building trust and surfacing expectations. The exercise produced visual narratives and reflective statements, later analysed

to identify shared themes and value orientations that informed the Define stage by clarifying collective needs and aspirations.

Phase 2 – Define: Synthesizing insights and framing design challenges through personas and journey mapping

The Define phase aimed to transform empathic insights into a coherent design challenge.

Data synthesis followed a convergent logic to produce user-centred Point of View (POV) statements, using two tools: Personas and Journey Maps. The first represented archetypical profiles (Principal, Teacher, Student, and Family) constructed along six analytical dimensions (identity, strengths, challenges, goals, activities, needs) that, to ensure that subsequent design choices remained user-focused and context-sensitive, were validated by participants. The latter visualised each personas daily experience, capturing key actions, emotions, and critical points. The maps generated experience narratives and thematic clusters, revealing where redesign could have the greatest impact. The outputs from this phase directly informed the framing of ideation sessions, aligning creative exploration with an empirical understanding of user needs.

To create a sense of community among different schools, the groups working on each persona included representatives from various institutions, allowing for an interconnected understanding and shared perspectives.

Phase 3 – Ideate: Generating and reframing possibilities

The Ideate phase encouraged divergent thinking and creative exploration, enabling participants to move beyond conventional solutions while emphasising openness, suspension of judgment, and the productive use of analogical reasoning. This stage aimed to translate insights from the define phase into provisional solution spaces for an “extended school” through inspirational case studies; four inspirational case studies—selected from INDIRE’s Movements of Educational Innovation (“Avanguardie Educative” <https://innovazione.indire.it/avanguardieeducative/> and “Piccole Scuole” <https://piccolescuole.indire.it/>)—served as creative stimuli. Each addressed a specific theme: STEM for early childhood, flexible extracurricular learning, libraries as community hubs, and teacher onboarding.

After each presentation, participants engaged in the Connect–Extend–Challenge routine (Ritchhart et al., 2011), reflecting on how the case connected to their practice, what new ideas it offered, and what challenges it raised. Responses, collected via digital boards, were analysed as short textual reflections. This phase generated conceptual mappings of design opportunities, linking creative insights to local school contexts.

Phase 4 – Prototype: Translating ideas into actionable strategies

The Prototype phase involved transforming selected ideas into tangible artefacts capable of being tested and refined. Through the Impact Map tool, participants articulated the relationships among goals (why), stakeholders (who), desired changes (how), and concrete actions (what).

Participants worked divided by schools so that each school produced a visual representation connecting pedagogical intentions with operational strategies, resulting in strategic artefacts that grounded visionary ideas in feasible trajectories for specific contexts. This phase produced a set of prototypes and strategic visions that became the basis for each school's Extended School Vision Document, the primary outcome of the project.

Moreover, across the DT phases, to ensure balanced participation and shared decision-making each group was provided with structured role cards (Zampolini, 2025), defining four roles: Conceptualizer, Gardener, Challenger and Jester; this allowed the distribution of functions and the support of reflective dialogue (Darsø, 2012; Strijbos et al., 2010).

3. Main findings

The experience carried out between March and May 2025 in six schools of the Municipality of Rho (Milan) offers a significant example of *participatory action research* (Kemmis & McTaggart, 2005), in which educational inquiry is linked to a process of collective transformation. The research, inspired by the four phases of *design thinking* (d.school, 2010; 2018), made it possible to explore, define, ideate and prototype visions of an extended school grounded in four key dimensions (Mangione, Cannella, Chipa, 2025, in press):

1. educational *spatiality*, understood as the opening of the school to other physical and virtual spaces;
2. educational *plurality*, as collaboration between teachers and external actors;
3. *praxicity*, as active and situated learning;
4. *curricularity*, as an open and interdisciplinary curriculum oriented towards ecological, digital and civic competences.

Following the recursive logic typical of action research, the process alternated moments of action and reflection, generating situated and transformative knowledge (Kemmis, 2009). Participants (head teachers, teachers and school representatives) took on the dual role of co-researchers and change agents, recognizing reflective practice as a key lever for educational and organizational improvement. All written materials produced were analyzed through a qualitative content analysis process (Mayring, 2000). The analytical categories were applied in a deductive manner in order to identify the specific needs and proposals for change put forward by school staff in relation to the vision of the extended school.

All the phases of the research played a generative role: it helped participants to make visible the shared complexities that characterize schools within the same territory and supported a collective awareness of the tensions that run through everyday practices. As Kemmis (2009) reminds us, educational transformation is rooted in processes of critical consciousness, in which language and reflection become tools of professional and communal emancipation.

3.1. The collective awareness of common needs

The *Empathize* phase made it possible to collect a broad repertoire of experiences, emotions and representations related to participants' school life within their real contexts. The Image Check-in marked the first generative moment of the research

and, through the symbolic mediation of images, allowed access to participants' implicit representations of the extended school. Drawing on the methodological perspective of visual analysis (De Maurissens & Pettenati, 2020), the image was treated as heuristic data, capable of activating photo-elicitation processes grounded in an emotional and pre-reflective language. Two guiding questions were posed: (1) Which image best represents your idea of an extended school? (2) Which image best represents your idea of collaboration?

Within a broad corpus of fifty images selected by INDIRE, abstract, evocative or figurative representations, paintings, and photographs, and made available in the collaborative Miro environment, each participant chose one image per question and accompanied it with a short text explaining the reasons for their choice.

The qualitative analysis of these comments brought to light shared semantic nuclei which, through subsequent collective feedback, took shape as initial categories of meaning. Images of bridges, circles, roots, and intertwined hands evoked the need for a caring and interdependent educating community; images of natural landscapes and children in motion expressed the aspiration to a school capable of 'inhabiting the world' in an ecological and intergenerational way.

The analysis of the motivations associated with the chosen images outlined an idea of school as: (1) *an open, welcoming and relational space*, where (2) *collaboration* becomes both a condition for wellbeing and a driver of innovation. This phase functioned as an initial visual baseline, orienting the group towards a shared vision of the extended school as an open and inclusive ecosystem, able to learn together with its community.

In the subsequent *Define* phase, personas and journey maps were used. These tools supported the translation of subjective experiences into shared needs, offering an ecological view of the school as an interdependent system.

Participants were asked to work in mixed groups, each composed of representatives from different schools. INDIRE proposed four personas, considered key interlocutors in school life: Head teacher/Director, Teacher, Student and Family. Participants were assigned to the various groups based on their competences and experiences; for example, teachers responsible for relations between school and territory were included in the Family group. For each *persona*, a corresponding *journey map* was developed.

This process allowed the six analytical dimensions identified by INDIRE for each persona (description of the role, professional identity, strengths, difficulties, professional goals, key activities) to be anchored in the challenges of a typical day. In this way, the reflective work invited participants to situate emerging needs within concrete scenarios.

The qualitative analysis of the personas and journey maps highlighted four core needs:

1. a more distributed form of educational *leadership*. In fact, from the perspective of school principals, leadership was described not as a solitary function but as "the need to delegate effectively, to supervise, verify and contribute while ensuring that each collaborator acts within a shared vision". The reflection confirmed that sustainable innovation depends on the capacity to transform hierarchical coordination into a generative form of *shared leadership*, rooted in trust and professional autonomy;
2. sustainable working *times and spaces*. Teachers repeatedly referred to "work overload, lack of time, and the difficulty of balancing professional duties and personal

life”. These accounts revealed the need to reconfigure temporal and spatial conditions of work as dimensions of pedagogical care, enabling reflection, collaboration, and regeneration rather than merely efficiency;

3. a necessary rebalancing between the *didactic and relational dimensions* of schooling. Students for example expressed how their learning “is most effective when when they feel welcomed, involved, and part of a context that recognizes and accompanies them beyond the lesson”. Their narratives illuminated the centrality of belonging, emotional wellbeing, and relational quality, suggesting that the pedagogical act cannot be separated from its relational and affective foundation;

4. a more dialogic and participatory *school–family relationship*. Families described themselves as “educational allies and emotional reference points” who wish to “participate actively in school life, provided that communication is clear and services are accessible and compatible with family rhythms”. Their voices pointed to the necessity of constructing transparent and dialogic partnerships between schools and families as an essential dimension of the extended school.

3.2 The challenges of an extended school

The *Ideate* phase, structured around the thinking routine “Connect–Extend–Challenge” (Harvard, <https://pz.harvard.edu/resources/connect-extend-challenge>), represented another key moment of generative reflection. Participants translated inspirational cases of extended schooling into concrete development hypotheses for their own contexts. These cases were selected from INDIRE’s innovation movements (Avanguardie educative and Piccole Scuole), based on the four dimensions of the extended school.

The thinking routine acted as a metacognitive device, supporting participants in reinterpreting external experiences in the light of the needs emerging from their own schools. The overall analysis of the routines completed by head teachers and teachers brought to light common tensions across the four experiences of extended schooling presented.

Ideas linked to STEM educational experiences prompted a vision of laboratory teaching as a space of curiosity, observation, and discovery, encouraging teachers to question how they manage inclusion and learning times. Extracurricular experiences highlighted the need for a structured alliance with the local community and the third sector, in order to support families and students through flexible and accessible opportunities. School libraries were reimagined as multifunctional places, “civic hubs of knowledge” capable of connecting culture and social life; the onboarding case opened a broader reflection on organizational wellbeing and the construction of welcoming professional communities, able to integrate new teachers in a systematic and participatory way.

These shared tensions became the challenges that the subsequent work on impact maps in the Prototype phase sought to address.

3.3 *Emerging school visions*

In the fourth and final phase, each school took into consideration the common needs that had emerged during the first two phases and, drawing on the knowledge acquired through the reflective process on the concept of the extended school, engaged in further reflection on possible additional challenges. The impact map served as a tool to outline a context-sensitive and sustainable *school vision*, capable of addressing these challenges and responding effectively to the identified needs.

The analysis of the impact maps highlighted specific development trajectories for each school context, alongside a common core of values.

The Pascoli nursery school placed the *reconciliation of school and family life* at the center of its vision, designing a formative after-school service, the enhancement of multiculturalism and the requalification of outdoor spaces as settings for experiential learning (outdoor education).

The Franceschini primary school identified *relational wellbeing and the quality of learning environments* as key levers for building an educating community: multi-sectoral workshops, a parents' counselling service and dedicated spaces for teachers were interpreted as pedagogical devices of care (Iori, 2025).

The Frontini primary school articulated the extended school vision in cultural and artistic terms, strengthening its alliance with the neighbouring music school and civic center, in a *community-hub perspective* (Cleveland et al., 2023).

The Banfi and Maria Immacolata private nursery schools developed a shared vision centered on socio-emotional education and the requalification of outdoor spaces: *social emotional learning pathways*, teacher training and family participation defined a model of school as a community of care and widespread wellbeing.

3.4 *Collective learning as a further outcome of action research*

The shared reflection that followed each workshop constituted a pivotal moment in the research project, where experiential work was transformed into professional and collective awareness. At the end of every session, groups were invited to engage in a brief, guided meta-reflection, using a thinking routine adapted to the educational context ("I used to think... Now I think"). This routine supported the verbalization of processes, the clarification of key learnings, and the emergence of new questions. It helped participants connect the experiences they had just lived with their tacit knowledge, extend their reflection to perspectives not yet considered, and challenge taken-for-granted habits and representations.

The reflections generated in these moments, collected by INDIRE researchers as audio recordings, were subsequently transcribed verbatim and submitted to content analysis following Mayring's (2000) approach. Through an inductive-iterative process of coding and recategorization, the research group elaborated meaning maps which gradually refined the four original analytical dimensions of the extended school, until three cross-cutting nuclei of meaning emerged:

1. *Wellbeing and sustainability* of educational work, with particular attention to time, space and emotional load;
2. *Educational alliances*, including their formalization through community pacts (Patti educativi di comunità), as a lever for continuity and innovation;

3. *Teacher professional learning and support*, understood as ongoing processes of professional development (Fullan, 2014).

These categories, rooted in dialogic and reflective construction, show how action research does not merely produce descriptive knowledge but also generates transformations in meanings, languages and practices.

The Rho community experienced research as a space for collective learning, in which reflective action (Schön, 1983) translated into a renewed culture of the extended school: a school that also learns from itself, that questions its own assumptions and that, through relationships and reciprocity, constructs its own vision of the future. The experiences of the six schools involved suggest that innovation does not coincide with the mere introduction of new practices, but with the capacity to build shared meaning around them and to root them in a common value framework and in a horizon of sustainability attuned to the characteristics of the educating communities.

4. Discussion of results

The discussion that follows interprets these findings along two complementary trajectories. The first concerns vision-making as a process of collective learning and situated creativity through which professionals built shared understandings and reimaged their institutions. The second examines transformative leadership as the ethical and systemic infrastructure that sustained and amplified these creative and relational dynamics.

4.1 Vision-Making as Collective Learning and Situated Creativity

The findings suggest that the co-construction of a school vision through DT activated a form of collective learning that progressively transformed how participants perceived their professional identity and the social function of their schools. Before producing tangible outputs, the groups engaged in a movement from introspection to collaboration, discovering that vision-building was not a matter of defining objectives but of negotiating meaning. The act of envisioning itself became a form of inquiry into what it means to educate, lead, and belong within a complex and changing ecosystem.

In the Empathize and Define phases, the first traces of a shared vision emerged as metaphoric expressions (bridges, roots, intertwined hand) that gave symbolic form to collective aspirations. These images depicted the school as a relational organism, open to interconnection and sustained by care. They also marked a passage from an institutional to an ecological understanding of education: one where the school's vitality derives from the quality of relationships within and beyond its boundaries.

The personas and journey maps created in these phases helped translate personal experiences into shared narratives, enabling teachers and leaders to articulate recurrent needs: distributed leadership, sustainability of time and work, equilibrium between pedagogical and relational priorities, and a renewed alliance with families. Through this collective mapping, the process functioned as a reflective mirror, allowing participants to recognize organizational tensions not as obstacles but as materials for creative redefinition.

In the Ideate and Prototype phases, creativity took shape as a situated and distributed competence. Participants collaboratively designed prototypes and impact maps that transformed abstract ideals into realistic projects. Their creative exploration

revolved around authentic design challenges: reimagining STEM pathways, activating partnerships with civic libraries, expanding extracurricular opportunities, and improving teacher onboarding. These challenges anchored innovation to the everyday life of schools, demonstrating that creativity was not spontaneous inspiration but contextual intelligence, exercised collectively to connect imagination with feasibility.

The four vision prototypes developed by participating schools revealed plural yet convergent visions. Outdoor education, multicultural dialogue, wellbeing, aesthetic environments, cultural alliances, and socio-emotional education all expressed a common constellation of values: openness, relational care, and sustainability. Diversity, in this context, did not fragment the process; rather, it revealed that creativity in education is plural by nature, grounded in resonance rather than uniformity.

Finally, the three cross-cutting outcomes—wellbeing and sustainability of educational work, educational alliances, and teacher professional learning and support—illustrate that vision-making evolved into a systemic process of professional and organizational learning. The reflective routine “I used to think... Now I think...” captured this transformation: participants reported enhanced agency, confidence, and awareness of their collective potential. Vision-making thus emerged as a pedagogical device of reflection, through which creativity was redefined as the capacity to make sense together, to connect ideas, relationships, and responsibilities into coherent trajectories of change.

4.2 Transformative Leadership and the Ethics of Shared Change

As the vision-making process unfolded, a parallel transformation became evident: while participants were collectively reimagining what a school could be, they were also redefining what it means to lead within it. The collaborative practices that sustained creativity—dialogue, empathy, reflection, and care—gradually crystallized into a new form of leadership. Rather than being designed or formally assigned, leadership emerged organically from the interactions that made collective sense-making possible.

The results indicate that the DT methodology nurtured a culture of distributed and generative leadership, in which coordination became facilitation and authority turned into participation. Leadership was not exercised from above but unfolded through a series of micro-interactions, moments of negotiation, synthesis, and relational mediation that bound individuals into a learning community.

During the Define and Prototype phases, this leadership became visible in multiple configurations. Coordinators, principals, and system figures acted as boundary spanners, linking schools, mediating perspectives, and maintaining coherence among diverse initiatives. Teachers, too, assumed leadership roles by guiding discussions, visualizing insights, or translating ideas into practice. Leadership thus emerged as situational, relational, and reflective, a capacity to hold uncertainty and foster collective understanding rather than to deliver pre-defined solutions.

One of the most salient findings concerns the link between leadership and wellbeing. Participants expressed a shared need for leaders who cultivate balance, empathy, and listening qualities that sustain both personal and organizational health. This emphasis reframes leadership as an ethic of care rather than an exercise of control: to lead means to nurture the conditions that allow others to grow and act. Grounded in trust and relational awareness, such leadership created the psychological safety necessary for creativity to flourish. As one participant observed, “our leadership

became listening, not directing.” This transformation reveals leadership as a moral practice, where authority stems from generosity and relational legitimacy rather than hierarchy.

Moreover, the results highlight the ecosystemic expansion of leadership through the formation of educational alliances with families, cultural organizations, and civic institutions. Leadership extended beyond the internal boundaries of schools to function as an ecological connector between institutional vision and community resources. The prototypes and impact maps illustrate how this networked leadership generates both organizational learning and social capital, positioning the school as a civic actor capable of co-producing innovation within its territory.

By the end of the process, leadership had evolved into a collective infrastructure for professional learning. Participants recognized that leading meant learning together, hosting dialogue, coordinating reflection, and co-designing action. This co-learning dimension represents the epistemic core of the leadership observed in the study: a pedagogy of leadership that transforms institutions into communities capable of thinking, acting, and evolving together.

5. Conclusions

The participatory design process carried out in the six schools of the Municipality of Rho (MI) demonstrates how vision-making can operate as a pedagogical act of collective reflection and transformation. Within this context, Design Thinking proved to be not only a methodological framework but also an epistemic device capable of linking creativity, leadership, and professional learning in a single process of inquiry and change. The research confirmed that the co-construction of a shared school vision generates professional awareness and organizational coherence, fostering a renewed sense of belonging and purpose among educators. Through iterative cycles of empathizing, defining, ideating, and prototyping, participants moved from individual representations of the school to the articulation of collective imaginaries rooted in their specific context and lived experiences. This transition from the “I” to the “We” represents the true educational outcome of the process: a reflective community that learns from its own practice and redesigns itself through dialogue and imagination.

At the same time, the study revealed that creativity and leadership are not parallel but interdependent competences that sustain educational innovation. Creative competence enabled professionals to envision possibilities beyond the constraints of the existing, while transformative leadership legitimized and anchored these possibilities in organizational practice. In this co-evolution, leadership became a pedagogy of care and shared responsibility, and creativity as a relational form of ethical reflection.

The extended school that emerged from this process is a living and plural idea, a school open to its territory, grounded in educational alliances, attentive to the wellbeing of its professionals, and capable of transforming everyday practices into spaces of social and cultural regeneration. The findings suggest that sustaining such visions requires cultivating conditions of trust, reciprocity, and reflective inquiry, in which teachers and school leaders can act as co-designers of their professional futures.

This research invites us to reconsider the meaning of innovation in education: it does not end with introducing new tools, but it is also a collective capacity to think, think, feel, and act differently together. In this sense, vision-making through design thinking can be conceived as a method and a metaphor for transformative learning, a

a dynamic process through which schools learn to reimagine themselves in response to emerging changes and needs and, in doing so, renew their contribution to the common good.

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