MEDIATING HERITAGE IN DISTRIBUTED EDUCATIONAL ENVIRONMENTS. A FRAMEWORK FOR LIFE SOFT SKILLS ASSESSMENT IN N.O.T.E. PROJECT

Marta Raffone[1]
Università della Campania Luigi Vanvitelli- Università "Pegaso"
marta.raffone@unicampania.it

Sara Gemma
University of Macerata- University of Naples "Parthenope"
s.gemma@unimc.it

Alessandra Natalini
Link Campus University
a.natalini@unilink.it

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ABSTRACT

The N.O.T.E. project (Nuovi Orizzonti Territoriali Ercolano), funded through the 2023 Territorial Cohesion Program (EU-NextGenerationEU, NRRP M5C3I3), represents a significant case of educational regeneration grounded in space, heritage, embodiment and pedagogical mediation. This contribution frames N.O.T.E. not only as a transformative territorial experience but as a methodological setting for the preliminary application of an assessment framework for life soft skills. Through semantic-operational rubrics based on major European key competence frameworks, empathy, inclusion, communication, cooperation and cultural awareness are translated into observable indicators across cognitive, affective, social-relational and psychomotor domains. Within this perspective, educational space and multisensory learning become measurable pedagogical variables, allowing the project to be explored as a potentially transferable educational ecosystem in which competence-related processes associated with inclusion can be systematically observed.

KEYWORDS
Emotionally aware learning environments; multisensory pedagogy; relational mediation; observation of inclusive processes.

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1. Introduction

In recent years, the international educational debate has increasingly focused on the need to rethink traditional educational models in light of the profound social, cultural and relational changes taking place in contemporary schools. Against this backdrop, issues such as inclusion, emotional wellbeing, multisensory learning and the assessment of skills play a central role in shaping learning environments that are more equitable, participatory and capable of meeting students' complex needs. Educational projects based on participation, engagement with the local community and the shared transformation of school spaces fit squarely within this perspective, proposing teaching models that move beyond the rigidity of traditional, teacher-centred instruction and promote integrated and meaningful learning experiences. One of the most significant aspects concerns the theme of inclusion (D'Alonzo & Giaconi, 2024), now understood as the creation of educational contexts capable of valuing the diversity of cognitive, cultural, physical and emotional differences. From this perspective, the inclusive school fundamentally rethinks spaces, methodologies and educational relationships so that every student can actively participate in school life. Participatory, workshop-based and experiential approaches encourage pupils' direct involvement, recognising the value of different learning styles and promoting forms of collaboration and shared responsibility. Within this framework, the concept of an emotionally aware educational environment takes on particular importance. Educational spaces are not neutral containers but influence pupils' sense of security, belonging, motivation and participation. Recent contributions from educational neuroscience further reinforce this perspective. According to Immordino-Yang, Darling-Hammond and Krone (2019), learning cannot be understood as a purely cognitive process occurring independently from emotions, social interactions and environmental conditions. Rather, cognitive, emotional and social development emerge through their continuous interaction, suggesting that educational environments do not merely host learning processes but actively contribute to shaping them. From this perspective, emotionally aware learning environments become educational ecosystems in which relationships, emotions and contextual experiences participate directly in the construction of learning.

This theoretical perspective helps explain why the design of educational environments plays such a significant pedagogical role. In practical terms,

welcoming flexible spaces designed through participatory processes foster the development of positive relationships and a climate of psychological well-being, helping to create conditions conducive to learning. In this sense, the care taken with school spaces and the active involvement of students in their transformation acquire significant educational value (Delors *et al.,* 1996; Boffo *et al.*, 2022). It is precisely this awareness that has helped shift the focus from subject-specific knowledge alone towards a broader set of skills that enable individuals to navigate complex contexts, collaborate with others, participate in social life and critically interpret reality. Yet, the more these skills take centre stage, the more a question emerges that the literature still addresses in a fragmented manner. How can we recognise their development? When a student learns a historical, mathematical or scientific concept, the educator generally has relatively well-established tools to document their acquisition. When, however, the changes concern the ability to collaborate, understand others' perspectives, participate in a collective project or value cultural diversity, the matter becomes more complicated. These transversal and prosocial skills represent some of the most ambitious goals of contemporary education, making it necessary to consider how they can be observed and documented. It is within this tension between educational experience and the observability of skills that this contribution is situated.

To understand why the issue of assessing transversal skills is so relevant today, we need to retrace the process that has gradually brought them to the forefront of international education policies. This is not a sudden shift, nor a mere terminological evolution. Rather, it is the result of a cultural transformation spanning at least the last thirty years of reflection on education. One of its most significant expressions can be found in the Delors Report (1996). When the International Commission on Education for the 21st Century identified the four pillars of learning – learning to know, learning to do, learning to live together and learning to be – as the foundation of a new educational vision, it implicitly criticised models centred exclusively on the transmission of knowledge. From this perspective, education is not merely the accumulation of information but concerns the development of the individual.

In the years that followed, this approach was progressively reinforced by numerous international organisations. OECD research highlights the role of social and emotional skills in educational and professional pathways (OECD, 2015; OECD, 2019), whilst studies by Heckman and Kautz (2012) show how many of the skills traditionally defined as non-cognitive exert a significant influence on individuals' life trajectories. At the same time, European institutions are beginning to develop an increasingly comprehensive set of frameworks dedicated to transversal skills. Key Competences for Lifelong

Learning (Council of the European Union, 2018), personal, social and civic competences (LifeComp) (Sala et al., 2020), entrepreneurship competences (EntreComp) (Bacigalupo et al., 2016) representing perhaps one of the most comprehensive attempts in recent years to describe competences which, by their very nature, tend to defy rigid definitions. More recently, the Report of the Expert Group on Transversal Skills and Competences (European Commission, 2022) reiterated the need to promote skills that are transferable across different contexts and recognisable throughout the entire lifespan (UNESCO, 2021). Therefore, whilst adopting different languages and perspectives, these documents converge on a fundamental point: transversal skills are not an ancillary element of contemporary education but represent one of its essential foundation.

Indeed, Italy has also recently recognised the strategic role of transversal skills in educational pathways. Law No. 22 of 19 February 2025 explicitly introduces the development of 'non-cognitive and transversal skills' within educational institutions, linking this to the promotion of educational success, the prevention of early school leaving, and the fight against educational poverty.

It is interesting to note how the very term adopted by the legislator – non-cognitive skills – fits into a well-established tradition in international literature. Yet, this very term perhaps merits a brief reflection. Defining a competence by what it is not inevitably risks placing it in a subordinate position to what is implicitly assumed to be the core of learning. As if cognitive competences belonged to the sphere of knowledge, whilst relational, emotional or personal competences occupied a different, almost peripheral territory. What is less cognitive about recognising one's own emotions? What process could be more closely linked to understanding the mechanisms through which we learn, interpret reality, attribute meaning to experience and build relationships with others? The ability to self-regulate, to take on another's perspective, to reflect on one's own mental processes or to critically evaluate one's own behaviour does not appear as an alternative to cognition but as one of its most sophisticated expressions.

Metacognition itself, recognised for decades as one of the fundamental dimensions of learning, consists precisely in the ability to be aware of one's own knowledge. If learning means constructing knowledge about the world, metacognition represents the ability to understand the processes through which such knowledge is constructed. From this perspective, few skills appear more profoundly cognitive than those that enable individuals to observe, interpret and regulate their own way of learning.

From this perspective, the distinction between cognitive and non-cognitive skills appears less clear-cut than the terminology suggests. Rather than being skills devoid of a cognitive dimension, they seem to take the form of multidimensional skills in which cognition, emotion, relationships and action all contribute simultaneously to the construction of the educational experience. Perhaps the point is not to determine whether such skills are cognitive or non-cognitive. Perhaps the point is to recognise that human learning is unlikely to be neatly divided into such distinct compartments. Emotions play a part in the construction of thought, cognition permeates relationships, and education has always developed through the interplay of these dimensions. And it is precisely this growing convergence between research, policy and legislation that makes one question – which runs through the entire contemporary educational debate – all the more urgent: if these skills are considered essential for inclusion, how can we recognise and document their development?

At the same time, the current debate highlights the importance of multisensory learning in educational processes. Innovative teaching methodologies, on the other hand, increasingly emphasise the role of the body, the senses, hands-on experience and interaction with the environment. Multisensory learning enables students to construct knowledge through movement, manipulation, observation, listening and direct exploration of space. This approach fosters not only greater participation and motivation but also the inclusion of different cognitive styles (Bruner, 1996) and modes of expression. From this perspective, participatory workshops, artistic practices, outdoor education and collaborative design activities become fundamental tools for promoting deeper and more meaningful learning experiences. Traditional assessment models, based primarily on measuring subject-specific knowledge through standardised tests and individual performance, are showing increasingly obvious limitations when it comes to the complexity of contemporary educational processes. Such models are often unable to capture fundamental cross-curricular skills such as collaboration, creativity, problem-solving, participation, social responsibility, critical thinking and empathy. The crisis in traditional assessment models also stems from the growing gap between the transformative educational practices being trialled in schools and the tools used to evaluate their outcomes. Many innovative approaches, based on learning by doing (Dewey, 1938), service Learning (Culcasi, 2025), participatory design or workshop-based teaching, promote complex, relational and situated learning that is difficult to capture through exclusively quantitative or standardised assessment methods. This creates a significant gap between the richness of educational experiences and the ability of assessment systems to recognise their educational value.

Furthermore, drawing on the intersection of active pedagogy, participatory urbanism and spatial planning (Biondi et al., 2023), studies highlight how public policies can transform school buildings into places of social gathering, culture and participation, particularly in suburbs characterised by social marginalisation and fragility, thereby promoting a conception of the city as a widespread educational environment. According to this approach, the school ceases to be a closed, self-referential institution and becomes a 'porous public space', open to continuous interaction with the surrounding area. The opening of school buildings outside school hours makes it possible to broaden educational opportunities and offer cultural and social services to the entire community. In urban contexts characterised by economic inequality and educational deprivation, the school acts as an empowering agent, capable of fostering pathways to social emancipation and strengthening a sense of collective belonging.

The concept of the 'educating city' should therefore be understood as an integrated system of places, relationships and educational practices spread throughout the urban space (Chipa & Orlandini, 2020). From this perspective, the local area is not merely the backdrop to the educational experience but becomes itself both the content and the tool of learning. Co-design workshops can trigger processes of physical and social regeneration through the shared care of green spaces and derelict public areas (Petrella, 2022). In this context, schools also take on the role of promoting local educational partnerships. Collaborative networks between schools, local authorities, universities, associations and citizens enable the development of innovative forms of participatory governance, capable of addressing educational, social and urban issues in an integrated manner. Through community pacts and collaboration protocols, the school becomes a 'collaboratory' of active citizenship, where practices of shared administration of common goods and new forms of democratic participation are tested. School initiatives can also have a tangible impact on urban planning tools. The participatory processes promoted by schools generate situated knowledge and 'transferable knowledge' that complement the technical work of planners and ensure urban projects are more closely aligned with the real needs of communities. In some cases, educational initiatives serve as genuine preliminary experiments capable of anticipating broader structural transformations (Marini, 2024).

In this context, a particularly significant example of participatory pedagogy applied to the transformation of educational spaces is the *N.O.T.E. project – Nuovi Orizzonti Territoriali Ercolano* – which will be discussed in the following paragraphs. Within the project, the workshop programme dedicated to

participatory architecture, ‘Imagining and transforming shared spaces’, was designed with the aim of changing the way children perceive, experience and use school environments, by directly involving them in the processes of observing, designing and transforming shared spaces. Underpinning the experience is the pedagogical premise that the school environment is not merely a neutral container for educational activities but acts as a genuine third educator (Malaguzzi, 1995), capable of influencing relationships, behaviours, social dynamics and learning styles. From this perspective, school environments become an integral part of the educational process and can be reinterpreted through practices of active participation and shared design. The first phase of the workshop involved a process of reappropriation and critical analysis of school spaces.

Through site visits, guided observations, photographs, preparatory sketches and exploratory activities, the children were encouraged to move beyond a view of school as a rigid, unchanging and predefined place. The experience enabled them to observe their everyday environments with a fresh and more conscious perspective, identifying elements perceived as functional, problematic aspects and possible desirable transformations. In this process, the creation of emotional maps (Lorefice, 2025) played a central role, as it allowed pupils to express perceptions, needs, emotions and desires linked to the spaces they experience on a daily basis. A fundamental element of the project was the students’ exercise of agency, understood as the capacity to act intentionally upon their own environment and their own experiential journey (Kolb, 1984). The children were not merely recipients of adult decisions but active participants called upon to formulate proposals, put forward design ideas, discuss aesthetic and functional solutions, and take part in collective decision-making processes. This direct involvement has fostered a sense of shared responsibility and the realisation that communal spaces can be transformed through the active contribution of the school community. The entire process was carried out in an inclusive and collaborative manner. Every proposal was listened to, discussed and collectively refined through discussions, the creation of models and the development of prototypes. The workshop thus fostered a climate of democratic coexistence (Nussbaum, 2010) based on dialogue, mutual listening and the ability to negotiate shared decisions. Participatory design became a concrete experience of citizenship education, in which the children experienced the value of discussion, compromise and cooperation in the management of shared resources. The workshop programme concluded with the actual creation of installations and physical interventions within the school, including small structures, decorative panels and functional objects designed by the pupils themselves. Although these transformations had a tangible impact on the school environment, their most significant value lies in

the symbolic (Vygotsky, 1978) and pedagogical dimensions of the experience. The opportunity to see their ideas come to fruition has, in fact, instilled in the children an awareness that communal spaces are not static, unchangeable entities but places open to participation, collective care and shared initiative. Overall, the participatory architecture phase of the N.O.T.E. project has transformed the school into a co-designed and shared space, where care for the physical environment is deeply intertwined with care for relationships and the community that inhabits it. The experience demonstrates how children's active participation in the processes of transforming the space can generate a sense of belonging, collective responsibility and civic awareness, strengthening the link between education, the local area and the community.

2. Competence assessment as a process

The growing importance of transversal skills and the difficulties associated with assessing them help to explain why this challenge persists despite the abundance of available definitions.

In recent years, European frameworks have produced an extremely rich conceptual body of work. LifeComp, the Key Competences for Lifelong Learning, ESCO and the Report of the Expert Group on Transversal Skills and Competences describe in detail the competences considered fundamental for inclusion, active citizenship and social participation (Council of the European Union, 2018; European Commission, 2022; Sala et al., 2020). However, these definitions share a common feature: they are designed primarily to describe what a competence represents, not to explain how it can be observed.

This is an apparently subtle but methodologically crucial distinction. A definition such as 'ability to collaborate effectively with others' identifies the general nature of the competence but does not provide sufficient guidance to recognise the behaviours through which it manifests itself. Similarly, definitions relating to empathy, cultural awareness or self-regulation describe laudable educational objectives but rarely allow these to be translated into observable evidence. The problem therefore lies not in the absence of definitions but in the transition from definitions to observation.

In other words, what is lacking is an intermediate language capable of translating theoretical constructs into recognisable behaviours. It is this need that forms the basis for the Competence Process Model developed in this study (Fig. 1).

The Competence Process Model adopted in this study was developed within a broader doctoral research project aimed at translating European definitions of

transversal competences into semantically grounded and pedagogically observable structures. N.O.T.E. represents its first application within an educational setting. Model development and application are therefore treated as two distinct methodological stages.

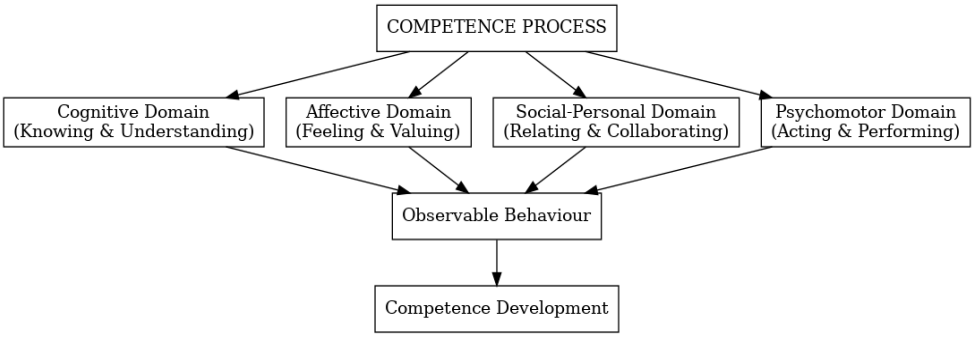


Figure 1: The Competence Process Model

The theoretical hypothesis underlying the proposed model is that a competence does not coincide with a single performance, nor with a stable characteristic of the individual. A competence is a process. It emerges from the continuous interaction between what a person knows, what they feel, the way they relate to others, and the actions they concretely perform within a specific context.

Starting from this premise, the definitions provided by the main European frameworks were subjected to a process of semantic decomposition aimed at identifying their constitutive elements (Bloom et al., 1956; Anderson & Krathwohl, 2001).

The analysis focused on four fundamental components:

- action verbs;
- objects of competence;
- operational purposes;
- implicit behaviours.

The construction process proceeded from the identification of competence definitions in European and international reference frameworks to semantic decomposition, multilingual comparison and weighting, attribution of the resulting components to the four domains of the Competence Process Model, and their subsequent translation into observable indicators and progressive rubric descriptors. The multilingual comparison used English as the reference language and examined corresponding semantic components in Italian, French, Spanish, German, Portuguese and Modern Greek. Semantic weighting considered conceptual centrality, interlinguistic coherence and contextual specificity (weighted at 0.4, 0.3 and 0.3 respectively). The final weighting was assigned through a qualitative-quantitative interpretative procedure rather than an automated classification.

The four domains integrate different but complementary theoretical references. The cognitive domain draws on Bloom's taxonomy and its revision (Bloom et al., 1956; Anderson & Krathwohl, 2001); the affective domain refers to the taxonomy developed by Krathwohl, Bloom and Masia (1964); and the psychomotor domain draws on Simpson (1972). The social-personal domain is informed by European frameworks on personal, social and transversal competences, particularly LifeComp (Sala et al., 2020), and accounts for relational processes such as communication, collaboration, empathy, negotiation and participation. Within the model, the four domains are used as complementary analytical dimensions through which the different components of competent action can be made observable.

The aim is not to modify the existing definitions but to make their operational structure explicit. To understand this procedure, it may be useful to consider the case of empathy.

In European frameworks, empathy is generally associated with the ability to understand the emotions, perspectives, and lived experiences of others (Sala et al., 2020). Through semantic decomposition, this definition can be articulated into a sequence of observable processes:

- recognising emotions and perspectives;
- understanding experiences and values;
- applying listening strategies;
- analysing relationships and needs;
- evaluating appropriate responses;

- creating connections oriented towards inclusion.

Competence thus no longer appears as a unitary and abstract construct but as a set of interconnected processes that can be translated into observable behaviours. The same procedure was applied to the other competences considered in the study, making it possible to construct a common structure capable of overcoming the terminological differences found across the various frameworks. The definition of the Competence Process Model represents only the first stage of the framework. Once the processes that make-up each competence have been identified, it becomes possible to translate them into observational tools. This is where the semantic-operational rubrics come into play.

These rubrics constitute the device through which competences are transformed into observable indicators while preserving the theoretical complexity of the reference frameworks. They represent the point of intersection between conceptual definition and educational observation.

The following section describes the structure and functioning of these rubrics, presenting selected application examples related to the competences of empathy, collaboration, and cultural awareness.

2.1 From Competence Processes to Assessment Rubrics

One of the main limitations of assessing transversal skills lies in the difficulty of observing phenomena which, by their very nature, do not manifest themselves directly.

Unlike subject-specific knowledge, which can be assessed through structured tests, many of the skills now considered fundamental to inclusion are expressed through complex processes, spread out over time and deeply influenced by context. Empathy, collaboration, self-regulation or cultural awareness cannot be observed as objects. They can only be recognised through the behaviours that make them manifest. It is precisely in this context that the function of semantic-operational rubrics comes into play. The rubrics proposed within the scope of this research represent the mechanism through which definitions derived from European frameworks are transformed into observable indicators (Brookhart, 2013). Their aim is not to simplify the complexity of competences but to make it comprehensible. The rubric (Jonsson & Svingby, 2007), therefore, is not interpreted as a classification tool but rather as a descriptive structure capable of documenting the processes that make up a competence.

Each rubric arises from the semantic breakdown of the reference definition and the subsequent distribution of its elements across the four domains of the Competence Process Model.

For example, in the Empathy rubric, the semantic components are translated into four domain-specific observable indicators: Cognitive Skills - establishes relationships based on active listening and mutual understanding; Social-Personal Skills - includes the emotions, needs and perspectives of others; Affective Skills - shows sensitivity, compassion and willingness to help or support others; Psychomotor Skills - expresses empathy through gestures, tone of voice and concrete supportive behaviours. The rubric uses a 0–10 mastery scale developed within the Competence Process Model. This choice reflects the need to distinguish between the level of mastery of a competence as a whole and the skills through which that competence is manifested and made observable. The scale is informed by the progression reflected in the EQF descriptors, particularly in terms of increasing complexity, responsibility and autonomy (Council of the European Union, 2017), but it neither reproduces nor corresponds directly to the eight EQF qualification levels. The adoption of a 0–10 scale also facilitates operational continuity with the decimal assessment metric used in the Italian school system (Italian Republic, 2017, as amended in 2024), while maintaining a clear distinction between competence mastery descriptors and conventional school grades. Within the proposed framework, the 0–10 scale therefore provides a finer-grained progression for interpreting how observable skills contribute to the progressive development and mastery of the competence.

The rubric uses a common 0-10 mastery scale: 0-1, Not achieved (the competence is not demonstrated); 2-3, Foundation (performs very simple tasks with guidance and support); 4, Foundation+ (understands and applies basic concepts in familiar contexts); 5-6, Intermediate (carries out routine tasks with a reasonable degree of autonomy); 7, Intermediate+ (handles less familiar situations with increasing independence); 8, Advanced (solves complex problems and integrates knowledge effectively); 9, Advanced+ (manages new and complex situations with confidence and mastery); 10, Highly specialised (applies competence in an innovative way and provides guidance to others).

2.2 From rubrics to the creation of hybrid learning spaces

The purpose of the rubrics is not to produce scores or rankings. Their aim is to make observable processes that traditionally remain implicit within the educational experience. They represent the meeting point between theory and

practice. On the one hand, they preserve the conceptual complexity of the European frameworks; on the other, they provide educators with a structure capable of documenting behaviours, relationships and modes of participation.

Inclusion is therefore not reduced to a numerical indicator. Inclusive processes can instead be investigated through the observable manifestations of the competences that contribute to their emergence.

As illustrated in the previous sections, N.O.T.E. was conceived as an educational regeneration project centred on the community and cultural heritage, active participation and the building of meaningful relationships between the local area, schools and local communities (Raffone & Gemma, 2025). In this paper, N.O.T.E. is not examined primarily as a regeneration initiative but as a methodological environment through which it is possible to explore, on a preliminary basis, the applicability of a competence assessment framework within hybrid learning environments. Consequently, this paper does not aim to provide a comprehensive account of the project itself but, rather, to explore its potential as a setting for the preliminary application of the framework to the observation of competences associated with inclusive educational processes.

The N.O.T.E. project involved 160 children aged 7–10 and was organised into two main workshop pathways: The Life of Our Ancestors, focused on participatory archaeology, and Participatory Architecture and Care of Common Spaces, focused on the collaborative redesign of school environments. Both pathways were implemented between October 2024 and April 2025. Activities were generally conducted in groups of approximately 20 participants. The archaeology pathway consisted of weekly meetings alternating classroom activities and visits to the Archaeological Park of Herculaneum; each meeting followed a recurring sequence including welcome, emotional check-in, content reworking, a manual activity or archaeological visit, and final self-assessment. The participatory architecture pathway comprised ten meetings organised into five operational phases, from observation of school spaces and collaborative ideation to prototyping and the tangible transformation of shared environments.

Competence-related behaviours were observed within these situated activities by the trainers and teachers involved in the project. The semantic-operational rubrics were used by trainers to interpret observable manifestations of transversal competences across the domains of the Competence Process Model. The present study should therefore be understood as a preliminary application of the observational framework in an authentic educational context rather than as a controlled assessment protocol. No inter-rater agreement analysis was conducted at this stage.

Assessment frameworks do not arise in a vacuum. Their effectiveness depends on their ability to engage with real educational contexts, characterised by relationships, constraints, complexities and processes that can rarely be reduced to controlled experimental conditions. From this perspective, the N.O.T.E. project represents a particularly significant context for exploring the applicability of the proposed framework.

As illustrated in the previous sections, rather than proposing activities aimed at the simple transmission of knowledge, the project has promoted experiences in which learning, emotion, physicality and relationships are constantly intertwined (*Table 1*). This characteristic makes N.O.T.E. particularly interesting from a methodological point of view. The activities developed within the workshops do not, in fact, require exclusively cognitive processes. They simultaneously call for understanding, participation, collaboration, self-regulation, interpretation of cultural heritage and the construction of shared meanings. In other words, they activate many of the dimensions that European frameworks identify as central to the development of inclusive competences. For this reason, N.O.T.E. can be interpreted as a privileged environment for reflecting on the possibility of observing these processes through assessment tools consistent with their multidimensional and multisensory nature. The significance of this case study therefore lies not merely in quantitative impact assessments but in the opportunity to test the framework's ability to describe and make sense of complex educational phenomena. One of the most interesting aspects to emerge from the analysis of the project concerns the correspondence between the workshop activities and the structure of the Competence Process Model.

The participatory archaeology, heritage storytelling and collaborative architecture workshops in fact trigger processes that simultaneously engage the four domains identified by the framework.

Activities involving the exploration and interpretation of cultural heritage require cognitive processes of observation, understanding and analysis. At the same time, they stimulate affective responses linked to a sense of belonging, collective memory and the construction of territorial identity.

The social dimension emerges through group work, the negotiation of meanings, the comparison of different perspectives and participation in shared decision-making. Finally, the psychomotor component manifests itself in practical activities, in the production of artefacts and in the tangible transformation of the spaces and objects used during the workshops. This distribution confirms the profoundly multidimensional nature of the learning processes promoted by the project.

The most significant aspect does not concern the isolated presence of individual domains but their continuous interaction. The activities proposed by N.O.T.E. appear, in fact, to foster situations in which understanding, emotion, relationships and action develop in an integrated manner. This characteristic appears particularly consistent with the perspective of emotionally aware learning environments, which interpret learning as a process distributed across cognitive, bodily and relational dimensions.

Recent evidence from educational neuroscience further supports this interpretation. Immordino-Yang et al. (2019) argue that cognitive, emotional and social processes cannot be meaningfully separated within human development because they emerge through continuous reciprocal interaction. Learning is therefore not the product of isolated mental functions but of dynamic exchanges involving cognition, emotion, relationships and situated experience. This perspective offers a theoretical foundation for the Competence Process Model proposed in this study, which conceptualises competence as the outcome of the interaction among cognitive, affective, social-personal and psychomotor dimensions rather than as the expression of a single domain.

Table 1: Observable manifestations of competence domains across N.O.T.E. activities

Activity	Cognitive	Affective	Social-Personal	Psychomotor
Archaeological Exploration	Observation, understanding and analysis of cultural heritage	Sense of belonging and territorial identity	Shared exploration and comparison of perspectives	Site exploration and practical archaeological activities
Heritage Storytelling	Reworking and interpretation of historical content	Collective memory and emotional engagement with heritage	Listening and construction of shared meanings	Manual/expressive activities accompanying reworking
Collaborative Interpretation of Cultural Heritage	Interpretation and analysis of heritage	Attribution of meaning to collective memory and identity	Negotiation of meanings and comparison of perspectives	Situated interaction with spaces, objects and artefacts
Participatory Architecture Workshops	Observation and critical analysis of school spaces	Expression of perceptions, needs, emotions and desires	Collaborative design and shared decision-making	Prototyping and tangible transformation of spaces
Group Planning Activities	Formulation and evaluation of design proposals	Expression of needs and preferences concerning shared spaces	Discussion, negotiation and shared decisions	Creation of models and prototypes
Community-Based Creative Activities	Reworking ideas into concrete solutions	Sense of belonging and care for common spaces	Cooperation and shared responsibility	Production of artefacts and physical interventions

3. Discussion

In recent years, inclusion has become one of the most recurrent terms in the European educational lexicon. It appears in institutional documents, programmes for educational innovation, territorial policies, and strategies aimed at social cohesion. It is difficult to find an educational project that does not refer, in some form, to the need to promote inclusive processes. Yet, precisely as the concept seems to have gained a central position in pedagogical debate, a question emerges that is rarely addressed in a systematic way: how can inclusion be recognised when it occurs?

The literature has devoted considerable attention to defining its principles, aims, and ethical implications. Far less frequent are attempts to identify the elements through which these principles are concretely manifested in educational practices. The risk is that inclusion may end up taking the shape of an evocative category: necessary at the theoretical level but difficult to describe at the empirical level.

From this perspective, the present contribution proposes a shift in focus. Rather than attempting to measure inclusion as an abstract property of educational environments, it examines some of the competence-related processes through which inclusive educational dynamics may become observable. Behaviours such as listening, collaboration, perspective-taking, participation in shared activities and the attribution of meaning to cultural diversity can provide evidence of competences that contribute to inclusive processes. These manifestations should not, however, be interpreted as a direct measure of inclusion itself.

From this perspective, observing competences such as empathy, collaboration, communication, self-regulation and cultural awareness can provide evidence about processes associated with inclusive educational dynamics, without constituting a measurement of inclusion itself. Among the most delicate issues running through the debate on Emotionally Aware Learning Environments is the relationship between experience and assessment. For a long time, these two dimensions were considered almost incompatible. On the one hand, educational experience, with its relational, emotional, and participatory richness; on the other, assessment, often associated with standardised procedures, classifications, and measurements. As if one were necessarily destined to impoverish the other. This opposition is understandable but probably increasingly difficult to sustain. The transformations affecting European education systems in recent years have shown growing attention to competences that elude traditional modes of assessment. Empathy, collaboration, active citizenship, cultural awareness, and self-regulation cannot be assessed through an objective test, nor can they be reduced to the logic of correct or incorrect answers. This does not mean, however, that they should remain outside any form of observation. On the contrary, precisely because these competences occupy an increasingly central position within European frameworks, there is a need to develop tools capable of documenting their development without betraying their complexity.

The aim is not to reduce inclusion to a set of indicators, nor to transform a complex phenomenon into a sequence of scores. On the contrary, the purpose is to develop tools capable of bringing theoretical reflection closer to educational observation by documenting competence-related behaviours that may contribute to inclusive processes. The framework therefore concerns the observation of competences and their manifestations; any inference concerning inclusion remains interpretative and context-dependent rather than a direct measurement of the construct.

From this perspective, assessment ceases to coincide with control and assumes a different function: that of making intelligible processes that would otherwise

risk remaining implicit. The point is not to transform educational experience into a collection of data but to construct a shared language through which to describe what happens within educational contexts. The semantic-operational rubrics proposed in this contribution are situated precisely within this intermediate space. They do not replace pedagogical interpretation, nor do they reduce the complexity of experience. Rather, they offer a structure that helps to make explicit what is often intuitively perceived by educators but only rarely documented in a systematic way.

4. Conclusions

The reinterpretation of the N.O.T.E. project proposed in this contribution makes it possible to highlight an additional dimension beyond those generally attributed to educational and community regeneration projects. Traditionally, such experiences are analysed in relation to the participation of the actors involved, the quality of the relationships established, or the effects generated within the local area. The perspective adopted in this study, instead, suggests that they should also be considered as privileged contexts for the observation of competences.

From this point of view, N.O.T.E. is not merely an innovative educational environment: it becomes a pedagogical observatory. The activities of participatory archaeology, heritage narration, and collaborative design provide opportunities in which inclusive competences can emerge through concrete practices. The value of the project therefore lies not only in the outcomes achieved but also in its capacity to make visible processes that would normally remain implicit.

References

Anderson, L. W., & Krathwohl, D. R. (Eds.). (2001). A taxonomy for learning, teaching, and assessing: A revision of Bloom's taxonomy of educational objectives. Longman.

Bacigalupo, M., Kampylis, P., Punie, Y., & Van den Brande, G. (2016). EntreComp: The Entrepreneurship Competence Framework. European Commission.

Biondi, G., Nadeau-Tremblay, S., & Faggioli, M. (2023). Comunità educanti. Ripensare l'istituzione educativa a partire dalle alleanze territoriali. *IUL Research*, *4*(8), 1-4.

Bloom, B. S., Engelhart, M. D., Furst, E. J., Hill, W. H., & Krathwohl, D. R. (1956). *Taxonomy of educational objectives. Handbook I: Cognitive domain*. David McKay.

Boffo, V., Iavarone, M. L., & Nuzzaci, A. (2022). Life skills and human transitions. Form@re, 22(3), 1–8. https://doi.org/10.36253/form-14130.

Brookhart, S. M. (2013). How to create and use rubrics for formative assessment and grading. ASCD.

Bruner, J. (1996). The culture of education. Harvard University Press.

Chipa, S., & Orlandini, L. (2020). The documentation of the Service Learning practice in adult training laboratories as a reflection tool on the educational experience. *Formazione & Insegnamento*, *18*(1 Special Issue), 207–219. https://doi.org/10.7346/-feis-XVIII-01-20_18

Council of the European Union. (2018). Council Recommendation of 22 May 2018 on key competences for lifelong learning (2018/C 189/01). Official Journal of the European Union.

Culcasi, I. (2025). Service-learning: l'educazione che trasforma. Un ponte tra saperi e comunità. Pensa Multimedia.

D'Alonzo, L., & Giaconi, C. (2024). *Manuale per l'inclusione*. Scholé.

Delors, J., Al Mufti, I., Amagi, I., Carneiro, R., Chung, F., Geremek, B., Gorham, W., Kornhauser, A., Manley, M., Padrón Quero, M., Savané, M. A., Singh, K., Stavenhagen, R., Suhr, M. W., & Nanzhao, Z. (1996). *Learning: The treasure within. Report to UNESCO of the International Commission on Education for the Twenty-first Century*. UNESCO.

Dewey, J. (1938). Experience and education. Macmillan.

European Commission. (2022). Final report of the Expert Group on Transversal Skills and Competences. Publications Office of the European Union.

European Commission. (2022). GreenComp: The European sustainability competence framework.

Heckman, J. J., & Kautz, T. (2012). Hard evidence on soft skills. *Labour Economics, 19*(4), 451–464. https://doi.org/10.1016/j.labeco.2012.05.014

Immordino-Yang, M. H., Darling-Hammond, L., & Krone, C. (2019). Nurturing nature: How brain development is inherently social and emotional, and what this means for education (EdWorkingPaper No. 19-106). Annenberg Institute at Brown University, https://edworkingpapers.com/sites/default/files/ai19-106_0.pdf

Italian Republic. (2017). *Legislative Decree No. 62 of 13 April 2017: Norms concerning the assessment and certification of competences in the first cycle and*

State examinations, as amended by Law No. 150 of 1 October 2024. *Gazzetta Ufficiale della Repubblica Italiana*.

Jonsson, A., & Svingby, G. (2007). The use of scoring rubrics: Reliability, validity and educational consequences. *Educational Research Review, 2*(2), 130–144. https://doi.org/10.1016/j.edurev.2007.05.002

Kolb, D. A. (1984). Experiential learning: Experience as the source of learning and development. Prentice Hall.

Krathwohl, D. R., Bloom, B. S., & Masia, B. B. (1964). Taxonomy of educational objectives: The classification of educational goals. Handbook II: Affective domain. David McKay.

Lorefice, M. (2025). Mappe di comunità: dai riferimenti metodologici alla sperimentazione territoriali.

Malaguzzi, L. (1995). I cento linguaggi dei bambini. Junior.

Marini, S. (2024). Scuole in azione. Nuovi protagonisti della rigenerazione urbana a base culturale ed educativa. Tesi di Dottorato.

Nussbaum, M. C. (2010). Not for profit: Why democracy needs the humanities. Princeton University Press.

Organisation for Economic Co-operation and Development. (2015). Skills for social progress: The power of social and emotional skills. OECD Publishing. https://doi.org/10.1787/9789264226159-en

Organisation for Economic Co-operation and Development. (2019). OECD future of education and skills 2030: OECD learning compass 2030. OECD Publishing.

Petrella, A. (2022). Mappare la comunità. Una proposta teorica e metodologica per il lavoro socio-educativo. Pensa Multimedia.

Raffone, M., & Gemma, S. (2025). Co-progettare lo spazio al margine. I laboratori N.O.T.E. per l'empowerment di luoghi e comunità. Mizar. Costellazione di pensieri. http://siba-ese.unisalento.it/index.php/mizar/article/view/32113/26216

Repubblica Italiana. Legge 22/2025. Valorizzazione delle competenze non cognitive e trasversali nella formazione scolastica e professionale. https://www.gazzettaufficiale.it/eli/id/2025/03/05/25G00029/SG

Sala, A., Punie, Y., Garkov, V., & Cabrera Giraldez, M. (2020). LifeComp: The European framework for personal, social and learning to learn key competence. Publications Office of the European Union. https://doi.org/10.2760/302967

Simpson, E. J. (1972). The classification of educational objectives in the psychomotor domain. Gryphon House.

UNESCO. (2021). Reimagining our futures together: A new social contract for education.

Vygotskij, L. S. (1978). Mind in society: The development of higher psychological processes. Harvard University Press.