DOSSIÊ "PESQUISA EM EDUCAÇÃO: MÉTODOS E PERSPECTIVAS DE PESQUISAS NA EDUCAÇÃO INFANTIL"

A reflective approach to educational "design"

Uma abordagem reflexiva para a projetualidade educativa
Un enfoque reflexivo de la proyectualidad educativa

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Abstract: The purpose of this article is to offer a comprehensive outline of the intents, processes and results of a research, training and experimentation project which involved educators, teachers, pedagogists and external trainers. This project resulted in a long process of redefinition of a "design approach to education within a network of municipality-run infant-toddlers centres and preschools located within the Province of Reggio Emilia (IT). If we conceive "*progettazione*" (design) as a research-oriented approach, as an educational and training process in which the aspects of "*progettazione*", action and evaluation constantly intertwine, "*progettazione*" turns into a strategy that sustains the collaborative construction of the knowledge of both adults and children together. Our experience was about acting out a projectural structure with the potential to generate change and characterised by systematic and recursive processes of observation, documentation, evaluation (interpretation) and feedback about the learning experience and the processes implemented therein. In particular, the processes of evaluation and self-evaluation utilised by the team, and deeply connected to the phases of reflection and meaning-building, provided room for the articulation of the strategies employed and for the levels of knowledge progressively acquired by the children. The intent of defining our design approach highlighted the necessity of recognizing the fundamental importance of some underlying structures of the pedagogical project, which constituted the starting point of our reflections: the educational context, the relation between families and educational institutions, the team group (made up of educators, teachers, auxiliary personnel, "atelierista" and pedagogical coordinator). In order to build new competences and new viewpoints, teachers slowly veered towards a different posture: that of a curious researcher who managed to elaborate the itineraries to knowledge and acquire a new awareness generated by common learning spaces thanks to continuous interchange between action and reflection in cooperation with one's colleagues.

Keywords: Design Approach; Context; Pedagogical Documentation; Educational Research; Learning Processes.

Resumo: O objetivo deste artigo é oferecer um esboço abrangente das intenções, dos processos e resultados de um projeto de pesquisa, formação e experimentação que envolveu educadores, professores, pedagogos e formadores externos. Esse projeto resultou num longo processo de redefinição de uma "abordagem projetual" para a educação dentro de uma rede de creches e pré-escolas municipais, localizadas na província de Reggio Emilia (IT). Se concebermos "*progettazione*" (projetual) como uma abordagem orientada para a investigação, como um processo educativo e formativo em que os aspectos de "*progettazione*", ação e avaliação se entrelaçam constantemente, "*progettazione*" transforma-se numa estratégia que sustenta a construção colaborativa entre o conhecimento de adultos e crianças juntos. Nossa experiência consistiu em encenar uma estrutura projetual com potencial para gerar mudanças caracterizada por processos sistemáticos e recursivos de observação, documentação, avaliação (interpretação) e *feedback* sobre a experiência de aprendizagem e os processos nela implementados. Em particular, os processos de avaliação e autoavaliação utilizados pela equipe, e profundamente ligados às fases de reflexão e construção de significados, abriram espaço para a articulação das estratégias

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empregadas e para os níveis de conhecimento adquiridos progressivamente pelas crianças. A intenção de definir a nossa abordagem projetual destacou a necessidade de reconhecer a importância fundamental de algumas estruturas subjacentes ao projeto pedagógico, que constituíram o ponto de partida das nossas reflexões: o contexto educativo, a relação entre famílias e instituições educativas, a equipe (formada por educadores, professores, auxiliares, atelierista e coordenador pedagógico). Para construir novas competências e novos pontos de vista, os professores foram lentamente mudando para uma postura diferente: a de um pesquisador curioso que conseguiu elaborar os itinerários para o conhecimento e adquirir uma nova consciência gerada pelos espaços comuns de aprendizagem graças ao intercâmbio contínuo entre ação e reflexão em cooperação com os colegas.

Palavras-chave: abordagem projetual; contexto; documentação pedagógica; pesquisa educacional; processos de aprendizagem.

Resumen: El propósito de este artículo es ofrecer un esquema completo de las intenciones, procesos y resultados de un proyecto de investigación, formación y experimentación que involucró a educadores, profesores, pedagogos y formadores externos. Este proyecto resultó en un largo proceso de redefinición de un "enfoque de proyectual" de la educación dentro de una red de centros infantiles y preescolares administrados por municipios ubicados dentro de la provincia de Reggio Emilia (IT). Si concebimos la "*progettazione*" (proyectual) como un enfoque orientado a la investigación, como un proceso educativo y formativo en el que los aspectos de "*progettazione*", acción y evaluación se entrelazan constantemente, "*progettazione*" se convierte en una estrategia que sustenta la construcción colaborativa del conocimiento de adultos y niños juntos. Nuestra experiencia consistió en representar una estructura proyectual con potencial para generar cambios y caracterizada por procesos sistemáticos y recursivos de observación, documentación, evaluación (interpretación) y retroalimentación sobre la experiencia de aprendizaje y los procesos implementados en ella. En particular, los procesos de evaluación y autoevaluación utilizados por el equipo, y profundamente conectados con las fases de reflexión y construcción de significado, brindaron espacio para la articulación de las estrategias empleadas y de los niveles de conocimiento adquiridos progresivamente por los niños. La intención de definir nuestro enfoque proyectual destacó la necesidad de reconocer la importancia fundamental de algunas estructuras subyacentes del proyecto pedagógico, que constituyeron el punto de partida de nuestras reflexiones: el contexto educativo, la relación entre familias e instituciones educativas, el grupo de equipo (hecho (compuesto por educadores, docentes, personal auxiliar, atelierista y coordinador pedagógico). Para construir nuevas competencias y nuevos puntos de vista, los docentes lentamente viraron hacia una postura diferente: la de un investigador curioso que logró elaborar los itinerarios hacia el conocimiento y adquirir una nueva conciencia generada por los espacios comunes de aprendizaje gracias al intercambio continuo entre acción y reflexión en cooperación con los compañeros.

Palabras clave: enfoque de proyectual; contexto; documentación pedagógica; investigación educativa; procesos de aprendizaje.

1 Initial reflections

The aim of this essay it to outline intents, processes and outcomes of a path of research, training and experimentation which has given rise to an itinerary of redefinition of a *design approach to education* within a network of municipal infant-toddler centres and preschools situated in the province of Reggio Emilia (Italy). The project involved educators, teachers, pedagogical coordinators and external trainers. The educational institutions participating in the project are coordinated by a single *team* of pedagogists and care for boys and girls aged 0 to 3 and 3 to 6 respectively.

For about ten years, infant-toddler centres and preschools have scrutinised the educational practices and their underlying thoughts, rearranging values and meanings of the pedagogical project with particular attention to the topics of planning, organization of the educational context, relationship with families, and the role of the working group (Martini et al., 2023).

Nowadays, some of the municipalities of Reggio Emilia (the territories of the Scandiano District and the Municipality of Correggio) share a design approach which allows focusing better on the potential of each child while contributing to qualifying the professionalism of the operators. This is far from a conception of childhood resulting from abstract and de-contextualised prefigurations.

By giving new form to experience, such path has built a different educational outlook, aware that "for experience to exist there needs to be [...] the intervention of a thought that allows to articulate experience into words, thus endowing it with symbolic existence" (Mortari, 2003, p. 15). Learning requires a slow time, a time of *being in search of...*, characterised by the construction of cognitive landscapes granting time to stop, to experience the unusual, and sometimes to briefly trace one's steps back to ancient certainties.

Making room for ongoing reflection during the unveiling of the educational processes brings the profession of the teacher closer to that of a researcher who works directly in the context in which he acts (Schön, 1983/1993). "It is the habit – automatism – that normalises, consolidates

and takes root in a concept, an idea, a practice, or the perception of a recurring fact" (Moriggi, 2016, pp. 190-191). Reflection, on the other hand, helps expliciting the implicit aspects of everyday life, opening up other perspectives by becoming aware of past actions.

The group level supports the process of change that is at the basis of the idea of a profession that constantly reviews itself within its daily actions. During the moments of discussion, which constitute a privileged training device within the experience described here, a choral reconstruction of meanings that allows for collegial growth is activated recursively, fostering the development of a culture for infancy (and childhood) that rises from below, where educational phenomena come to life.

Learning in a group, from and with colleagues, "means building forms of mutual involvement that lead to understanding and orchestrating the learning process as a socially shared enterprise" (Fabbri, 2007, p. 17). It also means exercising the ability of leaving comfort zones, reorganizing knowledge and structures of thought, re-learning to understand, interfacing with uncertainty and accepting doubt as a permanent condition of the thinking process.

Facing new horizons of knowledge becomes a stronger shared event if experience does not belong to the individual educator / teacher alone, but takes into account a joint-venture, a solid commitment to embracing change which translates into different levels of attention, promoting the development of a common repertoire of educational practices.

The training courses, in terms of forms and strategies which promote taking conscious and responsible action, are aimed at accompanying "the development of a reflective professionalism made possible by the systematic examination of one's own educational experiences and by observing, planning and developing research within one's own shared working context" (Gariboldi, 2015b, p. 226).

We undertook in-depth research on the basis of these reflections, a shared study between infant-toddler centres and preschools of several municipalities. The intent of the study was to reflect on some questions in order to revisit our thoughts related to our own knowledge-building process. Such questions included:

What idea of knowledge are we referring to?

How do children learn?

What is the measure of the impact of the experience in the educational path on children and adults?

What research chances do we guarantee to the child?

What research chances do we guarantee to the educator / teacher?

How do we enhance individual and group research?

Knowing means interpreting and reconstructing reality: the individual engaged in the knowledge-construction process bears responsibility for his/her own learning, and for the attribution of sense and meaning through a constant relationship with the others and with the context.

2 The value of design and its relationship with the knowledge-building process

If we understand design as *a research approach*, in a circular and recursive dynamic that intertwines with action and evaluation, it then becomes a strategy that supports the development of the knowledge of adults and children together.

What does it mean to build knowledge? For Morin, "knowledge is knowledge only as an organization, only as it is put in relation and in the context of information" (1999/2000, p. 9).

The most recent research in the field of psycho-pedagogy, and studies in neuroscience and biology, testify to the extraordinary learning abilities of children from the first years of life, and at the same time demonstrate the fundamental role played by the environment in promoting or, on the contrary, inhibiting such abilities (Ruini, 2013).

We are talking about a child who is precociously predisposed to learn, willing to participate in relationships and encounters with the others, and able to build his own and original paths of knowledge, capable of offering hypotheses, inter-

pretations and provisional theories on the events of the world, thanks to a constant interaction with the surrounding life context, through different codes and languages.

The design approach refers to a reticular learning theory. The itinerary of building knowledge is individual, but develops in relational contexts. So, what relationship can be recognised between design and construction of knowledge?

Designing is therefore configured as a "process of investigation and knowledge of the educational experience upon which hypotheses of meaning and conditions of development of the educational intents are initially built, and which must be continuously explored for meaning by conducting ourselves in an inquisitive and problematizing way" (Gariboldi, 2015a, p. 21). Speaking of design, the reference to Dewey (1910/1961) and to the model of investigation that he proposes cannot be avoided, both for the value attributed to experiential learning and for the meaning attributed to research, which is understood as a method for troubleshooting.

Bruner is especially helpful for the understanding of the role of the educational project in relation to the *educational intentions* that we declare. In the book *La cultura dell'educazione. Nuovi orizzonti per la scuola* (1996/2004), he asks himself about the purpose of the school, underlining its role as an agency tasked with educating young people to live in a world that will be constantly evolving. Starting from the first years of life, it is necessary to design learning conditions that allow every boy and girl to acquire learning-oriented cognitive styles, analysis and reflection of experiences, tools to read and interpret the complex reality from several points of views, elaborate it through a critical and complex thinking, capable of producing that type of knowledge that questions reality, reconstructing it through new interpretations.

If these thoughts capture some fundamental aspects of the sense of education today, then those who work daily with children have the task of promoting an approach to research characterised by intentionality and endowed with an open

and flexible forecasting structure, which is built starting from the specific context of reference in which adults and children learn together, within a daily life, which is the pivot of the educational experience, in which the unexpected, the unusual, the error are accepted as constitutive elements of the research process itself. Educators and teachers have the task of elaborating tools of observation and documentation capable of producing useful interpretations to open new paths of analysis that can be the starting point for the evolution for the research the undertaken, thus guaranteeing each individual's right to education.

The following considerations offer an outline of the main nucleuses which the work carried out with the operators of the preschools and infant-toddler centres involved identified as topics of further investigation. Such topics have transformed the methodological approach and reconfigured the central dimensions of the pedagogical project.

3 Basic structures of the pedagogical project

The aim of defining our design approach requires highlighting some basic structures of the pedagogical project: in particular, the educational context, the relationship between educational institutions and the families, and the role of the working group are essential.

These structures have been reviewed and reinterpreted from two different perspectives which have then converged over time, orienting our gaze, in its multifaceted nature and sensitive to new contaminations, in a common direction. The first perspective is related to a theoretical-cultural framework which derives from the contribution of different approaches and disciplines such as systems theory, the ecological and ecosystemic approach and the constructivist approach. For Bateson, in particular, context is a "matrix of meanings" (Bateson, 1972/2000). In other words, events cannot be interpreted without referring to the set of elements that make up the context which they are a part of. Interaction produces a type of dynamic and transformative knowledge.

The discoveries of neuroscience, and above

all of the mirror neurons (Rizzolatti & Sinigaglia, 2006) as mediators to understanding the behaviour of others, are revolutionizing the concepts of knowledge and interactive learning, highlighting the growing need for education to orientate towards ever-increasing multidisciplinary and global approaches. The second perspective is nourished by the experience and observations of those who work in educational services on a daily basis, with the aim of letting those semantics, that can outline a quality educational institution, raise to the surface.

3.1 The educational context as an interweaving of spaces, materials, time and relationships

It is from these theoretical frameworks, and from the reflections that emerged within the focus groups around certain questions (see below), that we interpret the role and meaning of the context against the background of educational design.

What role does context play in the construction of cognitive processes?

What does it mean to prepare educational contexts able to promote, support and enhance children's research processes?

What generative connections between the elements of the educational context?

What role does the educator / teacher play?

The *educational space* becomes a tangible and yet symbolic place where children and adults find and build identities, relationships and knowledge; a sort of living organism metamorphosises in relation to the paths of discovery and research of children, to the proposals of adults, to daily events, either planned or unexpected, the result of the many encounters between subjects and objects, thoughts and actions. A space that has the ability to trigger transformations in those who inhabit it.

The following teachers' reflections are drawn from the design hypothesis of a section of 4-year-old boys and girls of the Municipality of Scandiano regarding the educational context:

> Over the course of this short time, some spaces have been changed in an attempt to accommo-

date contributions from children and adults. In particular, the area of the collection of natural materials has been enriched and hosts all the items that children brought to school after the summer holidays. (Cigarini & Ronchetti, 2015, p. 193)

The design and re-design of the contexts are fundamental aspects of the approach we present. They reflect practices that require intersubjective comparisons in the work group and which find strong synergies with the use of the design tools that will be illustrated in the second part of the essay.

A clear and legible space, characterised and differentiated in its functions, a space that dialogues with its inhabitants, empowering them with a sense of belonging and able to support their interactions at multiple levels; a place that offers pretexts and stimuli and sustains the development of ideas and thoughts of children and adults.

A space that is modulated in relation to the different research areas and the path chosen, and which takes new configurations according to the steps of the ongoing process:

> The spaces of symbolic play proved to be itinerant contexts, for the children tended to take both large and small objects from the structured contexts and reconstruct settings elsewhere, staging transfers due to imaginary trips or picnics. We found this very interesting and supported it for its ability to bring out the desire of children to be active creators of the space in which they live their experience and relationships. (Cigarini & Ronchetti, 2015, p. 193)

A space that builds links between inside and outside (Mortari & Mussini, 2019), between micro and macrosystems, as two educators of a section of children aged 12 to 24 months of an infant-toddler centre in the Municipality of Correggio claim.

> Over the course of time, the days at preschool continue to be characterized by immersion into the natural context, a daily life in which the spaces of the section are gradually enriched with more and more natural objects. We observe that the natural material collected in the preschool's park as well as within each of its sections, lends itself to be manipulated, known and acted repeatedly by the children, each time according to one's personal styles of approach to the material. (Mussini et al., 2019b, p. 83)

A space able to allow new associations, exchanges of objects and thoughts between physical and mental areas, distant as they may be from each other. Finally, a space that facilitates the dialoguing of different languages and expressive forms through which each child, the active subject of every communicative and relational process, is able to express his own way of being, of knowing and learning.

The development and consolidation of learning is made possible by the presence of *materials* (informal materials in particular) that are rich, accessible, variegated in quantity and quality. In our opinion, such materials must support an ever-adapting but consistent balance between persistence and change. In other words, materials present in sufficient but not chaotic quantities, which are partially replaced with new objects over the course of time, guaranteeing the presence of some elements that offer continuity and that foster a sense of the "already known" and "already experienced", and also offering emotional reassurance within the context. The choice of materials to be introduced is not accidental, but emerges from the adult phases of interpretation and from the intersubjective comparison between adults and between adults and children. It is aimed at supporting connections between different fields of experience and areas of knowledge, to favour experiential consolidation, to relaunch, while sometimes causing a sort of loss of balance, towards unbeaten working paths.

Another peculiar dimension in the organization of the educational context is time. It is important to offer children a dilated time of approach, exploration and experimentation. Such time must respect the individual pace of those who are involved in the experience. To this end, it must be sufficiently flexible with regards to daily routines, so as not to interrupt what is happening in a given moment, if what is happening is significant.

Reflecting on the meaning of time in education also means envisaging moments that are not structured and arranged by adults, promoting conditions for children to organise themselves according to the rhythms and evolution of their learning processes. The encounter with an unusual material, an individual or group research, the connection between different languages or different semantic fields are processes that can last several days and affect the subjects involved for different amount of time.

These lines resonate with the value of a time dedicated to the recognition of experiences with children. «Re-cognition» says Rinaldi, «is above all trying to re-understand, re-think what happens, highlighting the relationships, constructing new ones which question and evolve those built earlier» (1994, p. 28).

In particular, in the infant-toddler centre, recognition is also carried out with the co-construction between adults and children of a *sfoglio visivo*, a documentation tool designed to be leafed through. Children need to repeat actions over time, to consolidate learning and build new relationships between objects and conceptuality. Below is an excerpt from a conversation of boys and girls aged 5 to 6 on the use of this tool (Germini, 2015, p. 144):

> *We make the sheets so we remember all the things … so we can do all those things but in a different, new way … then we can still make some writings of the drawings and then still remember everything we understood.* (Lucia)

What relationships are activated between the different subjects in the educational experience? In 0-6 educational services, the construction of relationships between the various participants in the educational experience constitutes its foundation and outlines its identity. The preschool and the school are an open microsystem (Bronfenbrenner, 1979/1986, p. 60) in which to recognise each subjectivity, the dialogical dimension of the encounter with the other, the value of the group as a generative context of learning. This passage is taken from a design hypothesis of a section of 3-year-old boys and girls in the Municipality of Casalgrande.

Contamination of ideas, comparisons between different points of view, expansions of one's mental maps and visions of the world also occur by arranging spaces and time for the colleagues of a section, or of a service work group or between

groups of different educational institutions belonging to the same Municipality or District, to jointly construct the design tools in the presence of the pedagogical coordinator. Similar processes also develop among children and are supported by adults through some teaching devices and strategies such as small group work, assemblies and recognition.

The choice to privilege the size of the small group, as a favourable context for the development of their research, has proved successful over time. The presence of some children (three to four) allows everyone to find that physical and psychological space that allows to express one's thoughts and to feel legitimised in one's own uniqueness. At the same time, it enables the adult to perform his/her *scaffolding* function well (Bruner, 1975) and to modulate the relationship climate to maintain a context of mutual, non-judgmental listening.

This is particularly significant for those children who experience difficulties or inconveniences in building their identity, in relationships and in learning.

We believe that the proposed approach can support the construction of designs capable of operating with a careful look at the personalization of learning paths, in response to subjective growth needs.

In the development of the course, the assembly was the subject of reflections and reinterpretations in its functions and meanings. Over time, it has assumed the value of a generative place for meetings, relationships and knowledge between children, in which the adult, reinterpreting his/ her role according to its articulation, assumes a crucial function by adopting styles and appropriate communicative methods. The assembly is the place for each child to be a protagonist. The words, the body, the graphics, the artifacts are all equally valued, and the different ways of expressing and learning assume the same cultural and communicative dignity. In the collective construction of knowledge (in small or large groups), the role played by contradiction, with the consequent request for explanations

and arguments regarding the different points of view, is crucial for the development of the topic at hand and the evolution of the cognitive process. "Can you tell what a shadow is?" asks a teacher of a municipal preschool of Correggio during a conversation with a group of boys and girls aged 4 to 5 years.

> *The shadow is a space occupied when the sun is shining, it is something that rests on the light.* (Michele)
>
> *The sun needs rays to make the shadow. If the rays go on us or in another situation, it happens that the shadow is formed.* (Filippo)
>
> *When the sun is shining it makes a free reflection and if it finds a space occupied, a line of shadow is formed.* (Michele)
>
> *To make the shadow it takes the sun, its rays and something to help them.* (Matteo)

After a first verbal investigation relating to identity (what is the shadow and how it is formed), the teachers invite the children to go out in small groups to observe and photograph the shadows they encounter. The subsequent recognition brings out different thoughts related to the movement of the shadow.

> *I understand, when we don't look at it (the shadow) it moves.* (Denis)
>
> *The shadows move like humans walking.* (Filippo)
>
> *While we were inside she moved very much!* (Stefano)
>
> *The plaster you used to draw it moved.* (Filippo)
>
> *No, it was the wind.* (Denis)
>
> *Here it stretched, there it became shorter, it went further.* (Matteo)
>
> So, ideas fly, bounce, pile up, rise, slowly unravel or disappear. Until one of them takes the upper hand, it flies very high and wins the whole parliament victoriously. In any case, it is the adopted idea which, in turn, adopts children and teachers. (Malaguzzi, 1995, p. 11)

Reasoning together about a lived experience or a common theme, through strategies that favour problem-solving situations, constitutes a valuable practice for the consolidation of learning and represents an experience of dialogue and comparison that involves a shared negotiation of meanings and the acquisition of new awareness (Pontecorvo, 2004).

Over time, the educator / teacher has revisi-

ted tasks and functions, reflecting critically on some dimensions of his profession, in search for a different posture that sees him as the one who participates in the cognitive experience with a curious and open-minded gaze. He is an adult who listens to the ways of being, learning and knowing of children, acting within the proximal development zone (Vygotskij, 1934/1990).

An adult who "relaunches" (promotes advancements in research) through the strategy of asking, to him/herself and the children, questions that generate meaning, to address the issue at hand and approach the child's thinking with "the attitude of those who never stop asking questions and questioning all the answers that seem defined" (Galimberti, 2008, p. 5).

The use of questions, as a relaunch strategy, also helps to keep together the different tools used to support educational planning, to build links between the various conceptual nodes investigated and the meanings underlying them.

> *In my opinion, we also made mistakes on the roads …* (Riccardo)
>
> *How come you think some roads are wrong?* (Adult)
>
> *Because it was difficult to remember.* (Riccardo)
>
> *How do we find out if some roads are wrong?* (Adult)
>
> *We can erase them all and go to the same place and draw the road again while we are walking.* (Emma)
>
> *We can make a new map and put it next to the one already made and see if it is right.* (Lucia)
>
> *We can use that map and then delete on that if there is something wrong.* (Viola)
>
> *We can walk with the map in our hand and then we understand if the road is right or wrong.* (Riccardo)

The *relaunch* (which will be better described later) is also configured as an attitude of the mind that translates a style of approach into daily practices, in the relationship with children and families. It welcomes the communication mode which creates that dynamism between the parts that makes research a collective work by giving importance to a word or phrase and emphasizing the value of a gesture.

An adult who relaunches through the offer of languages, since "it is in the transition from one language to another, as well as in their mutual interaction, that the creation and consolidation of concepts and concept maps would be allowed" (Rinaldi, 2009, p. 92).

An adult who develops design tools capable of supporting the knowledge-building process of children and adults by constantly activating a reflective thought on action, together with fellow educators / teachers and the pedagogical coordinator.

3.2 Educational institutions and families: towards a common path of meaning building

To introduce the second structure, which concerns the relationship between educational institutions and families, we can affirm that the transformations of families and the morphed identities of educational services over forty years of life require a continuous focus on what it means today to build an alliance and a dialogue between the institution itself and the different families that pass through it. Such interactions can only be interpreted according to perspectives that welcome complexity as a founding concept, and that respect "the phenomena, whatever type they are, in their dynamic totality and in the reciprocity of their relationships with the context that welcomes them" (Fabbri, 2004, p. 21).

The social context in which we live, characterised by strong complexities, great uncertainties, sudden changes, poses important questions about the priorities and intentions on which pedagogical choices and approaches adopted in educational institutions to those who deal with education depend, starting from childhood.

If education has the aim of contributing to the construction of autonomous and responsible personalities, endowed with critical sense and creative spirit, we imagine men and women living in the near future within a changing and global reality, in which it will be necessary to decode and interpret events to make choices that are conscious, respectful of the individual, of others and of the environment, probably deconstructing

and reconstructing identity paths and life plans. In this regard, Bauman writes "Once a life project, coinciding with the duration of life, identity has been transformed into an attribute of the moment. No longer designed once and for all [...], but assembled and disassembled and always starting from scratch" (Bauman, 2008/2018, p. 19).

Education, as a path of building meaning, and the future, as a time for the possibilities of being, need to walk together.

During the different moments of meeting and training, in which educators, teachers, pedagogists and trainers participated, we questioned the meanings of participation in our territory, the socio-cultural dimensions that influence it, and the role of educational institutions today in relation to the educational ideas that we intend to support.

We asked ourselves: which family representations should we share? What opportunities should we offer to parents so that they become protagonists within the educational project? Hence, the protagonists of the training experience within the educational institutions are not only children and operators: the system sees the involvement of a triad, in which the relationships between the three subjects (children, operators and families) activate a complex network of exchanges and connections that constantly influence each vertex of a hypothetical triangle.

How can the design approach accompany the construction of relations between institutions and families, between the many parenting styles and the operators of the services? With what relational modalities and through which documentary forms are families accompanied in the process of educational co-responsibility towards future generations?

What new awareness should we try to build together? What meanings should we communicate?

To outline some thoughts around these questions, we must firstly clarify that the sense of family participation in the educational project is understood as the central factor of the experience. "Education and participation come together: what, (education) and how (participation) become

the form and substance of a single construction process" (Rinaldi, 1999, p. 8).

Families understood as resources, within an open dialogue with institutions that becomes constructive and transformative to the extent that both poles of the relationship are committed to feeling an active part in the processes involved, not simply executors of what others have thought or decided. The experimentation of some practices emerges in the first place as the sharing of the project writings (explained below), presented to the parents during the section meetings, constitutes a sort of relaunch to open comparisons on the images of the child, education and learning. This is the locus for the expression of hypotheses, strategies and interpretations on learning processes of children, on relational dynamics, on the construction of individual and group knowledge and, last but not least, on the ways of understanding the involvement of parents.

It is precisely around the different representations, the expression of multiple points of view, the explanation of the meanings from which the educational practices themselves arise, at the preschool as well as in the family, that the discussion is activated and allows that sharing of meanings that creates progress and new awareness, and opens up to further questions. Here is a brief reflection of a parent drawn from the experience developed in an infant-toddler centre of the municipality of Scandiano (Boni & Donadelli, 2015, pp. 130-131):

> The idea that in the sfoglio (documentation tool) we have the moments chosen by the educators is exciting, because they found them meaningful and gave us feedback on them with the care with which you pack a gift. For us it is a memory, the meeting point of three points of view: parents who discover the world of their children, children who live their present and talk to each other, and educators who listen, observe them and choose for them and for us possible paths of growth, with care and patience. (Arianna's parents)

Therefore, it seemed to us that the strategy of relaunching with the use of good questions, placed both in daily documentation or designed to open and lead the discussion during the most formal meetings, is a good way to support reflec-

tive thinking with families as well.

In order for these moments of encounter not to be reduced to a simple illustration of words, images and reflections in a relationship in which the image of a strong and competent adult prevails against parents who find it more difficult to understand the meaning of the issues at hand, it is important to properly design strategies and methods of conducting the meetings.

First comes the choice of a lexicon, which must be simultaneously appropriate and understandable to all parties involved, thus guaranteeing the effectiveness of a communication respectful of all participants. Together with the vocabulary, the different communication tools employed (paper materials, videos, slides) and the interventions of the operators must also be designed to facilitate access possibilities according to the different representational systems (visual, auditory, kinaesthetic) and the cultural levels present in the group, in an attempt to offer real opportunities for participation and growth (Nanetti, 2010).

We also believe it is important to offer the possibility of living concrete, emotionally involving experiences, which can bring families closer to the actions, ways of learning and different languages that children used in their research. A mother who participated in a laboratory experience shared with the other parents of a section of boys and girls aged 3 to 8 months of an infant-toddler centre in Correggio commented (Mussini et al., 2019a, p. 58):

> *Although the materials present in the reverse garden were extremely common, I realised that he had manipulated them at home hundreds of times, but that he had never observed them so carefully. The sensation I felt is the perception of the beauty of nature and its power of continuous transformation.* (Caterina's mother)

We believe a different way of thinking about such encounters is more coherent with the design approach, in which the co-constructive dynamic of the educational experience occurs not only in the relationship between adult and child, but also between adult and adult (teachers-educators and parents), creating real learning groups that co-evolve over time.

In these processes, the initial intentions will only bring about trajectories of meaning whose results, just like for the research processes carried out with the children, cannot be understood unless at the end of a path taken together.

We believe that attempting to enter into the matter of the child's thinking, of his/her many ways of being and learning, can help adults, engaged in education in various capacities, to identify those methods of approach that best respond to real evolutionary and growth needs of the new generations.

The construction of a single design approach, albeit not rigid and constantly evolving, in all the educational institutions of a local authority, represents an element of continuity that supports families to recognise traces of a comprehensive educational system that operates on the 0-6 age group, according to coherent and shared approaches and methodologies, in the transition from one educational institution to another.

3.3 The working group as a reflective context

In order for a relational context to become significant for the development of skills and knowledge, refined styles and abilities must be developed in the adults who inhabit it. This results in the creation of a positive social climate which enhances the capability of listening to the identities of all those who belong to that environment. In our experience, the working group composed of educators / teachers, auxiliary staff, atelierista and pedagogical coordinator shares a common purpose and benefits from interdependent relationships, because all participants augment it with their own specific tasks and roles. It constitutes the first relational system that protects and promotes relationships with other systems established within educational institutions (children, families and the local area). The continuous and systematic moments of exchange within each working group, and between different working groups whose relations are sometimes horizontal (between two or more infant-toddler centres) and sometimes vertical (between infant-toddler

centres and preschools together) constitutes a winning strategy for encouraging cultural and professional enrichment. These moments of exchange see educators and teachers presenting and discussing practices and experiences trying to build links and relationships, with more theoretical contributions brought in by external trainers, enhancing both the contributions of each participant and the experiments that have been conducted, because "learning in a group favours a quality of learning which differs from that of individual learning" (Giudici et al., 2001/2009, p. 294). Time, which has already been mentioned in the previous pages, is especially valuable as a dimension that supports and qualifies life within a working group: adults must find spaces for reflection in established times within their regular working hours (in our system, full-time educators and teachers are allotted 200 hours for planning, training, connecting with families and territory, running team meetings at different levels). They must feel that they can experiment, repeat actions over time to consolidate learning, and build new connections between emerging and previously acquired knowledge (Gilioli, 2015). In our model, there is no contrast between the training proposals conducted by external experts and the team meetings held by the pedagogist: the latter assume mainly a function of reflection and re-reading of practices acquired thanks to the former.

Within the working group, the pedagogist (the pedagogical coordinator) undertakes "a situational management of collectives, as […] he / she knows how to adopt and negotiate the best intervention modalities" (Restuccia Saitta, 2006, p. 44). The development of the project approach presented also transforms the role of the pedagogist, enhancing its function as one who promotes reflection from inside in order to achieve change, works within the context of knowledge as something provisional, develops tools and strategies aimed at accompanying and supports the group in the activities of observation, documentation and interpretation of the educational processes.

The common work of re-reading the experien-ces, experimenting with various tools, activating processes for assessing the learning strategies of children and adults, always promoted in situations of collegial study, is decisive. Constantly urging the group to revisit educational practices, interrogate thoughts, experiment with a different set of educational contexts, proposing new teaching methods are just some of the strategies that can be adopted. The educational function conducted by the pedagogist becomes visible even in creating perspectives of common sense and in promoting a constant tension towards research. To achieve these aims, the role and function of the pedagogist, and being part of a network of coordinators operating in a given territorial area, becomes essential. Such a process has transformed the various professionals involved and contaminated other educational relationships and experiences, strongly re-signifying the central steps of the pedagogical project of a system of educational institutions.

Upon these structures rests an apparatus of tools in support of the educational planning. Such tools are elaborated together with the whole working group, for "in order to travel and not get lost, however, it is required to plan, with a 'method' […] The project in some way is the co-operative pre-vision, between child and adult: what one wants and can discover and know; what one wants or can do and be" (Caggio, 1995, p. 14).

This system of tools, grounded in inspiring principles and supported by processes that precisely characterise the design approach, is placed in a circular dynamic with the previously studied structures. Contexts, families, working group, design tools therefore represent nodes of the same network where each element gives meaning to others and from whom it receives additional meaning.

4 The design approach as a reflective strategy: principles, processes and tools

The system tools of design, consistent with previously mentioned principles and values, is part of the methodological approach developed. There are three fundamental processes within our

research approach: observation, documentation and interpretation.

The instrumental apparatus, developed by the working group together with the pedagogists during the years of training and experimentation in the field, allows supporting the development of the knowledge of children and adults, making both the strategies used, and the provisional knowledge developed in the field of research explicit. The constant process of re-signification of experiences qualifies the instrumental apparatus proposed as a real training device.

4.1 Principles

According to Morin (1999/2000, p. 99), a thought that creates connections must also be based on a dialogic principle: "dialogic allows one to assume the inseparability of contradictory notions in order to conceive a complex phenomenon". Promoting complex strategies to decode reality, right from educational institutions for 0-6-year-old children, implies the bearing of full professional responsibility connected the systems of values that frame our pedagogical project and the meanings attributed to acting in education.

The problematising spirit that permeates the approach, and the tools used in it, represents a way, a style of approach to reality, in which the use of generative questions (or good questions) becomes a strategy to educate adults and children to think in an open way, problematise situations, compare different ideas and points of view, relaunch questions, create connections, generate reflections useful for understanding a multiform and constantly evolving reality. Regarding the use of good questions, the groups endeavoured for a long time to understand their function within the research processes, their role in activating connections between the various design tools, learning over time to ask and elaborate questions to train a reflective mind.

There is a circularity in the use of tools, a periodic return to a starting point, a cyclical use, particularly in the intermediate stages of the evolution of the educational project. This recursion allows for a continuous evaluation of the quality of the educational project, contributing to the construction and evolution of the identity of the educational institution itself. The re-readings of the paths of experience (recursive control), are enacted through tailored tools called *sfogli visivi* and conceptual maps of recognition. These tools are useful for resetting the in-depth routes, with the reworking of new mental maps and for processing the design relaunch around the middle of the year. The instrumental apparatus is also characterised by flexibility: it is capable of supporting the development of dynamic and creative thinking in those who use it. It helps to cultivate change as a practice of complexity. However, there is a certain systematicity in the use of the tools. The use of the tools must take place regularly and methodologically. Finally, the approach is inspired by the principle of personalization which intends to enhance the cognitive potential of each subject, respecting the talents and attitudes of each (Martinelli, 2004).

4.2. Processes

In a more comprehensive definition of the concept of planning, evaluation is considered an object of planning, and not a mere phase or moment of the educational event. Regarding to this, what emerges from the assessment documents is what guides actions, styles and organizational methods, as well as the design devices themselves (Fasce, 2007). In other words, it is a matter of giving shape to a change-generating design structure, characterised by recursive and systematic observation, documentation, evaluation, and by a process of relaunching the activated learning paths. Actions of analysis and synthesis are necessary for the evaluation and self-evaluation processes, and concern the knowledge-building strategies of both children and adults. In adults, these actions promote reflexive processes that counteract a rigid and repetitive process, support the development of flexible thinking by giving space to the creation of research-action practices. Analytical and synthetical processes therefore constantly characterise the action of the adult and the child and are necessary to re-read the

experiences and the conceptual reworkings of individuals and the group; they are elaborated with the use of tools such as *sfogli* and maps.

The methodological approach presented uses observation as a privileged tool for activating and developing processes. Through observation, the adult enters the child's experience, the evolution of his thought, and from there here he goes to question himself, asking pertinent questions and soliciting new curiosities. The documentary process is closely connected to observation.

The strength of the pedagogical documentation lies in the possibility of making educational values and intents visible, supporting and qualifying the educational action. In particular, documenting processes allows us to show the strategies that adults and children put in place, allows us to re-read over time the learning itineraries, the ways and personal styles of building your knowledge processes through a reflective and intersubjective operation that supports the interpretative processes and future project relaunches. The documentary processes give back responsibility for action and reflection to the adult, because "we build and co-produce the documentation, as active and involved subjects. There is never a single true story" (Dahlberg et al., 1999/2005, p. 216) they imply a choice that finds shared spaces of comparison and interpretation in the dialogue with colleagues. The re-reading of children's words and actions, the search for connections with previous experiences, favours the emergence of nucleuses of meaning useful for identifying new areas of investigation. In particular, the self-evaluation and evaluation processes tightly connected to the phases of reflection and re-signification of the working group. But what does it mean to relaunch, from an operational perspective? What connections are there with the evolution of the design plot? What contribution does this strategy make to the building of learning itself?

The relaunch is built from an action (better if intersubjective) of attribution of meaning around the experiences and knowledge that children are building, as a further examination of the conceptu-

al nodes investigated in the research undertaken, or as the opening of new possible prefigurations, intended as new starting points, if the track has been sufficiently investigated by children or when the unexpected is welcomed as a new orientation of the project's direction.

4.3. Tools

The system includes design tools (design hypothesis and project relaunch, mental set-up maps and conceptual recognition maps), observation tools (*brogliaccio* / workbook and observation grids) and documentation tools (*sfoglio visivo*).

The tools of the *brogliaccio* and the observation grids, which accompany the entire evolution of the design experience, are elaborated by the educators / teachers in a form that we can define as "rough / provisional". They constitute the base for the definition of all other instruments. The *brogliaccio* is a collection of notes relating to the actions of children, reflections and re-readings of adults, photographic sequences, fragments of ideas. It notes significant events in a non-structured way.

Inside the *brogliaccio* there are also specific observation tools called observation grids, design tools particularly suitable for observing small-group research processes. The observational grid tool schematically highlights the cognitive strategies activated by each child in relation to a specific investigation focus. Its compilation is personal, but the possibility of re-reading it collectively helps to refine skills related to the processes of observation and documentation.

The *design hypothesis* is a complete analysis and synthesis tool which, in a non-rigid way, identifies the salient steps of the educational project and develops after an initial phase of observation and documentation of the first investigative attempts.

The design hypothesis is organised in narrative form and in chapters that highlight the complexity of the educational project: section identity, pedagogical organization of the educational context, explorable environment, possible design paths, methodology, participation and documentation

strategies. What relationship is there between hypothesis and relaunch? The project relaunch (tool and strategy) supports the evolution of the project path and conceptual advances. After a re-reading of the ongoing documents produced, the working group of each section, together with the pedagogist, elaborates a further text that builds a new photograph of the section group and the context and reports the interpretations produced, choosing how to relaunch the research, posing new questions from different perspectives. This process has a cyclical evolution, according to the timing of the evolution of the research itself. The relaunch represents an exploration of the investigation at hand. The use of mental and conceptual maps has been particularly useful, among possible orientation tools, to define relaunches. The mental map is defined as a setting when it certifies the first level of initiation of the project path, establishing the focuses of investigation chosen by the adults within a panorama full of exploratory possibilities, in connection to the construction of the project hypothesis (for example, if you intend to investigate the concept of measurement, the focus could be: why do we measure? What can be measured?). The focuses on which the map is structured open the reflection to more specific explorations. The relaunch mental map is elaborated after a first evaluation phase, followed by the conceptual recognition map, and defines the levels of development and exploration of the path (for example: what materials and tools do children use to measure?) The conceptual recognition map, on the other hand, summarises a temporal phase of investigation, making the group's temporary knowledge visible. It opens the reflection towards the definition of a new relaunch mental map. It is preceded by a phase of recognition that contains important elements such as meaningful phrases by the children, activated strategies and researches, concepts related to the individual focuses of the original mental map.

The *sfoglio visivo*, the instrument of documentation par excellence, gives visibility to the learning processes of children through a phase of elaboration of the observations made within the context of everyday experience. Developed by the educators, it consists of photographic sequences, graphics, children's words, reflections by adults, generative questions inspired by the *focus* of the mental map that accompany and characterise the evolution of the research itself. The sheets are always available to children and families.

A reflection by Bruner on the relationship between learning and culture building can summarise the meaning of a contribution that has tried to encapsulate the value of a dense and passionate experience.

> Learning is almost always a community activity: it is the process by which culture is shared. It is not just a matter of making sure that the child really takes possession of his knowledge, but that he appropriates it in a community of people who share his sense of belonging to a culture. It is this conviction that leads me to emphasize the importance not only of discovery and invention, but also of comparison and sharing. (Bruner, 1986/2003, pp. 156-157)

References

Bateson, G. (2000). *Verso un'ecologia della mente* (G. Longo, Trans). Adelphi. (Original work published 1972)

Bauman, Z. (2018). *L'etica in un mondo di consumatori* (F. Galimberti, Trans). Laterza. (Original work published 2008)

Boni, P., & Donadelli, M. (2015). Sfogli visivi e di sintesi nei nidi d'infanzia. In D. Martini, I. Mussini, C. Gilioli, F. Rustichelli, & A. Gariboldi (Eds.), *Educare è ricerca di senso: applicazione di un approccio progettuale nell'esperienza educativa dei servizi 0-6 anni* (pp. 129-137). Junior.

Bronfenbrenner, U. (1986). *Ecologia dello sviluppo umano* (L. Camaioni, Trans.). Il Mulino. (Original work published 1979)

Bruner, J. (2003). *La mente a più dimensioni* (R. Rini, Trans.). Laterza. (Original work published 1986)

Bruner, J. S. (1974). From communication to language. A psychological perspective. *Cognition*, *3*(3), 255-287. https://doi.org/10.1016/0010-0277(74)90012-2

Bruner, J. S. (1975). *Early social interaction and language acquisition*. Academic Press.

Bruner, J. S. (2004). *La cultura dell'educazione. Nuovi orizzonti per la scuola* (L. Cornalba, Trans.). Feltrinelli. (Original work published 1996)

Caggio, F. (1995). Pre-testi per alcune riflessioni sulla progettazione educativa. *Bambini*, 9, 12-23.

Cigarini, F., & Ronchetti. M. (2015). Ipotesi e rilancio progettuale nelle scuole comunali dell'infanzia. In D. Martini, I. Mussini, C. Gilioli, F. Rustichelli, & A. Gariboldi (Eds.), *Educare è ricerca di senso: applicazione di un approccio progettuale nell'esperienza educativa dei servizi 0-6 anni* (pp. 192-197). Junior.

Dahlberg, G., Moss, P., & Pence, A. (2005). *Oltre la qualità nell'educazione e cura della prima infanzia: i linguaggi della valutazione* (L. Rossato, Trans). Reggio Children. (Original work published 1999)

Dewey, J. (1961). *Come pensiamo: una riformulazione del rapporto tra il pensiero e l'educazione*. La Nuova Italia. (Original work published 1910)

Fabbri, D. (2004). *La memoria della regina. Pensiero, complessità, formazione*. Guerini e Associati.

Fabbri, L. (2007). *Comunità di pratiche e apprendimento riflessivo*. Carocci.

Fasce, M. (2007). Progettazione. In R. Cerri (Ed.), *L'evento didattico. Dinamiche e processi* (pp. 59-77). Carocci.

Galimberti, U. (2008). *Il segreto della domanda. Intorno alle cose umane e divine*. Apogeo. (Original work published 2006)

Gariboldi, A. (2015a). La progettazione: un approccio di ricerca. In D. Martini, I. Mussini, C. Gilioli, F. Rustichelli, & A. Gariboldi (Eds.), *Educare è ricerca di senso: applicazione di un approccio progettuale nell'esperienza educativa dei servizi 0-6 anni* (pp. 19-25). Junior.

Gariboldi, A. (2015b). Nota a margine. Progettazione e comunità di pratica. In D. Martini, I. Mussini, C. Gilioli, F. Rustichelli, & A. Gariboldi (Eds.), *Educare è ricerca di senso: applicazione di un approccio progettuale nell'esperienza educativa dei servizi 0-6 anni* (pp. 225-228). Junior.

Germini, L. (2015). Sfogli visivi nelle scuole dell'infanzia. In D. Martini, I. Mussini, C. Gilioli, F. Rustichelli, & A. Gariboldi (Eds.), *Educare è ricerca di senso: applicazione di un approccio progettuale nell'esperienza educativa dei servizi 0-6 anni* (pp. 144-163). Junior.

Gilioli, C. (2015). Le griglie osservative e il brogliaccio. In In D. Martini, I. Mussini, C. Gilioli, F. Rustichelli, & A. Gariboldi (Eds.), *Educare è ricerca di senso: applicazione di un approccio progettuale nell'esperienza educativa dei servizi 0-6 anni* (pp. 111-122). Junior.

Giudici, C., Rinaldi C., & Krechevsky, M. (Eds.). (2009). *Rendere visibile l'apprendimento. Bambini che apprendono individualmente e in gruppo*. Reggio Children. (Original work published 2001)

Malaguzzi, L. (1995). L'idea del luna park degli uccellini e delle fontane. In G. Piazza (Ed.), *Le fontane* (pp. 11-13). Reggio Children.

Martinelli, M. (2004). *In gruppo si impara. Apprendimento cooperativo e personalizzato dei processi didattici*. Sei.

Martini, D. (2015). I riferimenti teorico-culturali. In D. Martini, I. Mussini, C. Gilioli, F. Rustichelli, & A. Gariboldi (Eds.), *Educare è ricerca di senso: applicazione di un approccio progettuale nell'esperienza educativa dei servizi 0-6 anni* (pp. 28-35). Junior.

Martini D., Mussini I., Gilioli C., Rustichelli F., & Gariboldi, A. (2023). *Design and research: sesign is research. A design approach-based experience in the Province of Reggio Emilia*. Junior.

Martini D., Mussini I., Gilioli C., Rustichelli F., & Gariboldi, A. (Eds.). (2015). *Educare è ricerca di senso. Applicazione di un approccio progettuale nell'esperienza educativa dei servizi 0-6*. Junior.

Moriggi, S. (2016). Per amor del vero. Come prendere l'educazione con (un po' di) filosofia. In M. Dallari, & S. Moriggi (Eds.), *Educare, bellezza e verità* (pp. 189-280). Erickson.

Morin, E. (2000). *La testa ben fatta. Riforma dell'insegnamento e riforma del pensiero* (S. Lazzari, Trans). Cortina. (Original work published 1999)

Mortari, L. (2003). *Apprendere dall'esperienza. Il pensare riflessivo nella formazione*. Carocci.

Mortari, L., & Mussini, I. (2019). *Con parole di foglie e fiori. Bambini nella natura*. Junior.

Mussini, I. (2016). Il rilancio nella progettazione educativa. *Bambini*, *2*, 30-34.

Mussini, I. (2016). Un comune percorso di costruzione di senso. *Bambini*, *2*, 41-44.

Mussini, I. (2019). L'assemblea con i bambini. *Bambini*, *3*, 32-36.

Mussini, I., & Gilioli, C. (2016). Contesti e strumenti nell'approccio progettuale. *Bambini*, *5*, 17-21.

Mussini I., Davolio M., & Rabitti R. (2019a). Sentire la natura, tra il dentro e il fuori. In L. Mortari & I. Mussini (Eds.), *Con parole di foglie e fiori. Bambini nella natura* (pp. 48-58). Junior.

Mussini, I., Orlandini, G., & Domenichini R. (2019b). Approcci, esplorazioni e ricerche contatto con la natura. In L. Mortari, & I. Mussini (Eds.), *Con parole di foglie e fiori. Bambini nella natura* (pp. 76-85). Junior.

Nanetti, F. (2010). *L'arte di comunicare*. Pendragon.

Pontecorvo, C. (2004). Discutere, argomentare e pensare a scuola. L'adulto come regolatore dell'apprendimento. In C. Pontecorvo, A. M. Aiello, & C. Zucchermaglio (Eds.), *Discutendo si impara. Interazione e conoscenza a scuola* (pp. 73-97). Carocci.

Restuccia Saitta, L. (2006). Il ruolo del coordinatore educativo: compiti e funzioni. In N. Terzi (Ed.), *Prospettive di qualità al nido. Il ruolo del coordinatore educativo* (pp. 40-47). Junior.

Rinaldi, C. (1994). *I processi di apprendimento dei bambini tra soggettività e intersoggettività. Taccuini, 1*. Comune di Reggio Emilia.

Rinaldi, C. (1999). *I processi di apprendimento dei bambini tra soggettività e intersoggettività. Taccuini, 8*. Comune di Reggio Emilia.

Rinaldi, C. (2009). Documentazione e valutazione: quale relazione. In M. Davoli (Ed.), *In dialogo con Reggio Emilia, ascoltare, ricercare e apprendere* (pp. 85-97). Reggio Children.

Rizzolatti, G., & Sinigaglia, C. (2006). *So quel che fai: il cervello che agisce e i neuroni specchio*. R. Cortina.

Ruini, M. (2013). Dare forma agli apprendimenti di bambini e adulti. *Bambini*, *4*, 14-15.

Schn, D. A. (1993). *Il professionista riflessivo. Per una nuova epistemologia della pratica professinale* (A. Barbanente, Trans). Dedalo. (Original work published 1983)

Vygotskij, L. S. (1990). *Pensiero e linguaggio: Ricerche psicologiche* (L. Mecacci, Trans). Laterza. (Original work published 1934)

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