# ECOLOGICAL SYSTEMS THEORY AND THE REGGIO EMILIA APPROACH

A THESIS

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**Abstract**

The Reggio Emilia philosophy is fascinating to educators worldwide. This qualitative, exploratory, non-experimental, phenomenological design rooted in grounded theory through interviews with 10 Reggio educator's, examines the Reggio approach, revealing its unique pedagogical implications. The interview data was coded into 60 plus preliminary codes in the first cycle, followed by second-cycle coding and third which began translating the codes into three major themes were found to align with Bronfenbrenner's Ecological Systems Theory (EST), an analogy not previously reported in the literature. EST consists of five nested systems that were found to be nearly identical to Loris Malaguzzi's desires, implications, and beliefs for what Early Childhood Education (ECE) should look like. Both Bronfenbrenner and Loris Malaguzzi would agree that learning must be deeply meaningful, engaging, collaborative and inspire all children to explore their worlds without limits. Education should not be a rigid structure forced on children, but instead, an evolving process that is shaped by relationships, curiosity, and reflection.

Keywords: Reggio Emilia, Hundred Languages of Children, Ecological Systems Theory, social constructivist approaches, early childhood education.

## Ecological Systems Theory and the Reggio Emilia Approach

The Reggio Emilia philosophy is fascinating to educators worldwide, but once you look closely at what it is all about, it makes perfect sense why it works so well. This research qualitatively explores real Reggio educators' experiences and roles as teachers in this evolving classroom space. As one passionate Reggio educator who had been in the field for roughly four years reflectively summarized:

> To me, following a Reggio Emilia approach is a chance to slow down, connect, and honor children and their capabilities, respecting their interests and autonomy as individuals through the 100 languages and learning more about how to perceive the world together.

Throughout this thesis, the literature is closely analyzed, uncovering the core values of Loris Malaguzzi and the historical implications of Reggio Emilia, Italy, in today's educational philosophy. As the story progresses, interview data from 10 teachers in the field share stories of how they incorporate the Reggio principles into their teaching and learning. The data from my interviews reveal three themes: what teachers do, how they do it, and what happens to the children– providing a basis for understanding how Early Childhood Education (ECE) progresses from teacher to curriculum to child. I complement the literature and clarify the data using Bronfenbrenner's ecological systems theory. Though not previously reported for explaining Reggio learning, EST supports many, if not all, of Malaguzzi's intended theoretical implementations outlined in Reggio's key values.

## Literature Review

This literature review aims to provide a glimpse into the literature and research in the Reggio Emilia realm, as well as on Bronfenbrenner's ecological systems theory (EST). Bronfenbrenner's EST is a theory consisting of five nested systems: microsystem, mesosystem, exosystem, macrosystem, and chronosystem (Figure 1) (Guy-Evans, 2022). The connection

between Bronfenbrenner's EST and the Reggio Emilia approach will become more apparent throughout this thesis.

The literature review contains six sections, which discuss different research in the Early Childhood Education (ECE) and Reggio field – Historical and Philosophical Foundations of Reggio Emilia Education, Key Values of Reggio Emilia Approach, Children's Development in Reggio Contexts, The Role of Teachers in the Reggio Emilia Approach, Ecological System Theory on Youth, and Critiques and Limitations of Literature.

**Historical and Philosophical Foundations**

Reggio Emilia is a town in northern Italy; it is one of Italy's wealthiest and most developed areas, with its population reaching four million (Arseven, 2014). This unique, magical, and progressive pedagogical approach was developed after World War II (WWII) and supported by Loris Malaguzzi in Reggio Emilia (Arseven, 2014). Post-WWII, parents and families in Reggio wanted to build a school for their children using funds they obtained by selling tanks, trucks, and horses that remained from the war (Arseven, 2014). The first Reggio school – Reggio Emilia Municipal School – was opened in 1963 for children ages three to six (Arseven, 2014; Reggio Emilia Approach, 2019). Following closely after, the Anne Frank Preschool was founded and started. After the development of the first school, the city was given the title of best in early childhood education (ECE) (Arseven, 2014). Malaguzzi died suddenly in 1994, and Reggio Children was started per his request to continue to grow the Reggio Emilia philosophy. Reggio Children is an International Center for the Defense and Promotion of the Rights and Potentials of Children (Reggio Emilia Approach, 2019). In 2006, the International Centre was officially opened (Reggio Emilia Approach, 2019). The Reggio approach made its way to the United States in 1987 with an exhibit about *The Hundred Languages of Children,*

displayed in California (About NAREA). Since then, the Reggio approach has been adapted and developed in 145 countries and territories worldwide (Reggio Emilia Approach, 2019).

Malaguzzi, along with many others, refers to this pedagogy of teaching as social constructivist, which was inspired by theorists John Dewey, Jean Piaget, Lev Vygotsky, Jerome Bruner, and others (Arseven, 2014; Dodd-Nufrio, 2011). The social constructivist theory developed by Vygotsky emphasizes the collaborative nature of learning (Jafari et al., 2015). This theory assumes that learning and understanding of meaning are created through social relations with others (Jafari et al., 2015). This theory also assumes that humans are rational creators of models of the social world. The most efficient and sustainable way to share that knowledge is through language (Jafari et al., 2015). Vygotsky also believed that cognitive growth occurs at the social level first and then at the individual (Jafari et al., 2015). Based on the literature (e.g., Vygotsky year), social constructivist theory is deeply rooted in Reggio Emilia's pedagogy.

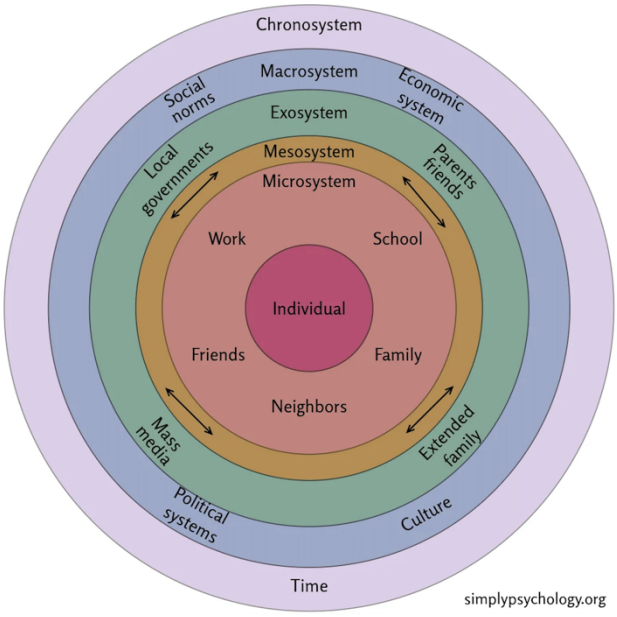
Many, including educators, confuse the Reggio Emilia approach for being like the Waldorf and Montessori approaches. However, these approaches differ tremendously. Rudolf Steiner developed The Waldorf approach in the twentieth century in Germany, and it is used worldwide today (Canakcioglu, n.d.). This philosophy is rooted in the child as a bodily whole and has a set of values that guide children to produce with their minds, hands, and hearts (Canakcioglu, n.d.). The approach also emphasizes the child's holistic being (physical, psychological, and spiritual) (Canakcioglu, n.d.).

Dr. Maria Montessori developed the Montessori approach in Italy after successfully working with handicapped children (Mavrič, 2020). The Montessori approach focuses on experimentation and a child's natural interest; many compare it to the Reggio approach (Mavrič, 2020). The approach differs in classroom space preparation. In Montessori rooms, the space is

prepared only by teachers, and children play with toys and materials provided the *proper way.* (Mavrič, 2020). With a basic understanding of these approaches, we can see differences compared to Reggio.

While Malaguzzi was inspired deeply by theorists who developed Dewey's experiential education approach, Piaget's stage theory of cognitive development, Vygostky's sociocultural theory of cognitive development, and Bruner's discovery learning, the data in this study also revealed connections and insights into Bronfenbrenner's ecological systems theory (Guy-Evans, 2022; Arseven, 2014). As mentioned, Bronfenbrenner's EST is a five-stage theory of nestled circles (Figure 1) (Guy-Evans, 2022). The microsystem is the first level, containing those directly influencing the child: teachers, school, parents, and siblings (Guy-Evans, 2022). The mesosystem involves interactions between the child's microsystems that, in some way, significantly impact the child (Guy-Evans, 2022). The exosystem incorporates outside social structures like friends or family, local government, and extended family that eventually make their way to affect the child (Guy-Evans, 2022). The macrosystem focuses on a wider social circle, like how social norms, stereotypes, and existing cultural norms may affect the world where the child is developing (Guy-Evans, 2022). The chronosystem was a late addition to EST and is the circle that relates to how time affects a child, whether predictable or unpredictable (Guy-Evans, 2022).

***Figure 1.***
Bronfenbrenner's Ecological Systems Theory (Guy-Evans, 2022)




**Key Values of Reggio Emilia Education**

> To make a lovable school, industrious, inventive, livable, documentable and communicable, a place of research, learning, recognition and reflection, where children, teachers and families feel well - is our point of arrival.
>
> - Loris Malaguzzi (Reggio Emilia Approach, 2019) (translated from Italian to English).

Reggio Emilia has many values and beliefs that support the pedagogy. Those found most in this study, as well as the supported literature, are The Image of the Child, The Role of Relationships and Collaboration, The Environment as the Third Teacher, Documentation as a Tool for Learning, and The Hundred Languages of Children

***The Image of the Child***

There are many images of the child, and each person has a different one (Malaguzzi, 1993b). For Reggio Emilia's pedagogy, the image of the child is at the center and is shown as capable (Malaguzzi, 1993b). The environment that the teacher constructs reflects your image of

the child, so if our view of the child is capable and a whole human, the spaces teachers design will reflect those traits (Malaguzzi, 1993b). By placing the child in the center of designing space, building curriculum, and curating relationships, we can help foster a safe learning environment where positive development happens (Malaguzzi, 1993b). However, while the strong image of the child might come easy to some, it can be challenged in some traditional schooling, which is where EST comes into play. Specifically, the macrosystem focuses on how existing social norms, politics, and culture might affect the personal views of the child (Guy-Evans, 2022; Malaguzzi, 1993b). For example, if an educator has a preconceived notion that boys learn slower than girls, their image of the child is weaker, and they might view the boys as less capable (Guy-Evans, 2022; Malaguzzi, 1993b). Also, this impacts one's overall interactions with them, directly impacting relationship building; – here, we can begin to see the overlap between theory and pedagogy.

### *The Role of Relationships and Collaboration*

Loris Malaguzzi (1993a) writes that he aims to create a school that is active, inventive, livable, documentable, and communicated between three protagonists: the children, the teachers, and the parents. Malaguzzi wanted schools to be connected and for relationships to be ever-evolving, whether between teacher and teacher, child and child, teacher and child, teacher and parents, etc. (Malaguzzi, 1993a). And with that, he succeeded. Education is not entirely based on relationships; there are other factors such as development, materials, etc., but relationships do set the foundation for much of the learning that occurs in the education system (Malaguzzi, 1993a). Teachers should look to support social interaction and exchanges in their classrooms whenever possible (Malaguzzi, 1993a). By helping students make connections and build foundational relationships, we widen their network and enhance overall learning (Malaguzzi, 1993a).

Malaguzzi has done extensive research and shared some principles of social interactions in his *Reggio Emilia Journal* (1993a); children learn by interaction with their environment, interaction among children is a fundamental experience, small group interaction provides space for negotiation, along with a few others (Malaguzzi, 1993a). In the EST circles, this is directly correlated with our mesosystem, where the interaction between teacher and teacher eventually affects the child (Guy-Evans, 2022; Malaguzzi, 1993a). For example, suppose a parent is actively involved in their child's life at school, like attending school performances, teacher conferences, etc. In that case, their children are more likely to enjoy attending school and learning (Guy-Evans, 2022). This also correlates strongly to Malaguzzi's emphasis on incorporating parents in the school, classroom, development, and overall learning (Malaguzzi, 1993a).

***The Environment as the Third Teacher***

Reggio Emilia's pedagogy identifies three educators in the classroom, existing and interacting simultaneously (Strong-Wilson & Ellis, 2009). These include the teacher, the child, and the environment; the environment is a living being that exists in the classroom space along with the child and teachers (Strong-Wilson & Ellis, 2009). Malaguzzi believed that if we start seeing the environment as one of the educators in the room, we can notice how it impacts the child's learning (Strong-Wilson & Ellis, 2009). The Reggio way forces teachers into deep listening and the very careful art of paying close attention; this helps the educators in the room create spaces that speak to children (Strong-Wilson & Ellis, 2009). An example could be placing small mirrors around the room and putting pencils and markers with paper in the block area (Strong-Wilson & Ellis, 2009). These things are meant to surprise the children and create a dialogue between children based on the environment (Strong-Wilson & Ellis, 2009). This ties

into many of Reggio's values, like relationships and collaboration, and the environment as the third teacher. Once you see how the created environment affects a child's learning, development, and relationships, the third teacher is enhanced. This idea of the third teacher lies in Bronfenbrenner's mesosystem, where the child's microsystem (like the physical space they are in) impacts their being (Guy-Evans, 2022). For example, teachers Ms. Charlotte and Ms. Barnes discuss a new art exploration, and one day, they leave our huge canvas with massive paint brushes for the child to explore. The kids loved it and talked all day about the “huge” art they got to make. Ms. Charlotte and Ms. Barnes used the environment as a third teacher; they set the stage, and the children and environment did all the learning from there (Guy-Evans, 2022; Strong-Wilson & Ellis, 2009).

***Documentation as a Tool for Learning***

Assessment and documentation can differ depending on the practice, age range, teacher, school, etc. In the Reggio environment, documentation is at the forefront of curriculum building. Documenting is the process of narrating and describing interactions and choices a child makes in the classroom (Azevedo et al., 2022). Teachers document the goal of building an image of the child, themselves, and the pedagogy, which helps teachers relate to their children (Azevedo et al., 2022). There are many techniques and strategies for documenting in the classroom. Still, most commonly, documentation consists of writing quotes, actions, choices, interactions, etc., that the children have and then pairing them with pictures, art, and child creations to tell a story of their learning and development (Azevedo et al., 2022). These documentation creations become an evolving piece to share with professionals, families, and children that showcase the learning process (Azevedo et al., 2022). Documentation is an outside influence that falls under the exosystem in Bronfenbrenner’s EST. This nested circle incorporates formal and informal

structures that influence the child but are not directly interacting (Azevedo et al., 2022; Guy-Evans, 2022). This fits in EST's exosystem because the ideas around documentation and the already developed norms of "how to do it" are established. For example, if a teacher (in the child's microsystem) has always done documentation by writing children's quotes, but in the new class, they have a non-verbal child– this child's documentation will be less than those who are verbal due to the already established norm of documentation (Azevedo et al., 2022; Guy-Evans, 2022).

### *The Hundred Languages of Children*

The Hundred Languages of Children (HLC) is a tool developed by Malaguzzi as part of the Reggio approach (Mphahlele, 2019). HLC is used to encourage and showcase children's exploration of their environment through multiple forms of expression, some of which include communication, symbolic, ethical, logical, cognitive, imaginative, and relational (Mphahlele, 2019). HLC, in short, is a tool that helps children show their unique ideas, thoughts, feelings, emotions, and questions (Mphahlele, 2019). Malaguzzi also developed a poem (Appendix D) on the 100 Languages of Children titled "NO WAY. THE HUNDRED IS THERE," which further clarified HLC.

For Bronfenbrenner's EST, HLC falls right into the child/individual (Reggio Emilia Approach, 2019; Guy-Evans, 2022). The actions, feelings, emotions, thoughts, and ideas that contribute to the HLC happen within the children themselves (Mphahlele, 2019; Guy-Evans, 2022).

## Children's Development in Reggio Contexts

Child development is often understood from three key contributors: Lev Vygotsky's sociocultural theory, Jean Piaget's theory of cognitive development, and Erik Erikson's

psychosocial stages of development. All three contributors have influenced the Reggio Emilia approach and inspired Malaguzzi in the creation of Reggio.

Vygotsky, the key player in sociocultural theory, believes that while development does happen in stages, learning also happens in social settings with others first (Newman, 2018). He posits that we learn from people in our social world, and then we learn about ourselves and our actions (Newman, 2018). Malaguzzi considered much of Vygotsky's work in creating the Reggio Emilia way.

Jean Piaget, a Swiss psychologist, was curious about how children develop from birth to young adulthood, where he found the theory of cognitive development (Pakpahan & Saragih, 2022). Piaget posits that children develop in stages, which always happen in order without skipping a stage (Pakpahan & Saragih, 2022). The stages include:

1. Sensori-Motor (birth to 2): The child's thinking involves seeing, hearing, moving, touching, and tasting (Pakpahan & Saragih, 2022).
2. Pre-Operational (2 to 7): The child has not yet mastered mental skills but is thinking by what they see vs what is logical (Pakpahan & Saragih, 2022).
3. Concrete Operational (7 to 11): The child is developing the ability to think rationally (Pakpahan & Saragih, 2022).
4. Formal Operational (11 and up): The child thinks logically, reasons, and solves problems in a systematic manner (Pakpahan & Saragih, 2022).

Malaguzzi was not as inspired by the work of Jean Piaget but still considered some aspects such as ideas of cognitive development and that children develop through stages (Dodd-Nufrio, 2011).

Lastly, Erik Erikson also posited stages of development, a psychosocial approach to development (Cherry, 2024). Erikson was drawn to the social experience across the lifespan and how social interaction and relationships played roles in human growth (Cherry, 2024). Erikson's stages include:

1. Trust vs Mistrust (birth to 18 months)
2. Autonomy vs Shame and Doubt (toddler to 3)
3. Initiative vs Guilt (preschool to 5)
4. Industry vs Inferiority (6 to 11)
5. Identity vs Confusion (teen to 18)
6. Intimacy vs Isolation (18 to 40)
7. Generativity vs Stagnation (40 to 65)
8. Integrity vs Despair (65 to death)

Malaguzzi did not specifically share that Erikson's work inspired him, but there are implications of Erikson's theory in Reggio classrooms.

While all these development theories differ, the one commonality is time. The widest nested circle on Bronfenbrenner's (2005) EST is the chronosystem, which represents change over the child's life. Development happens over time in all three theorists' conceptions (Newman, 2018; Pakpahan & Saragih, 2022; Cherry, 2024; Bronfenbrenner, 2005). Reggio practices influence our overall cognitive, social, and emotional development in positive ways over time. Over time (chronosystem), creativity, problem-solving, collaboration, and social competence adjust. Looking at the child/individual through Bronfenbrenner's EST, we have the microsystem which might be the first developmental aspect noticed, immediate classroom environment experience, and its impact on development. For Vygotsky, this is the initial social interaction in

the space with the teacher, child, and classroom (Newman, 2018). For Piaget, this is the Sensorimotor stage characterized by what the child sees, smells, and feels in their little world (Pakpahan & Saragih, 2022). Lastly, in Erikson's stages, the microsystem appears in the development of trust or mistrust with family, siblings, teachers, and peers in stage one.

**The Role of Teachers – Microsystem & Mesosystem**

The microsystem and mesosystem directly impact the child and play key roles in their development and learning. Within the microsystem exists the teacher, whose role is of utmost importance. Edwards and Gandini's (2015) research on the evolving role of Reggio teachers includes the six roles of the Reggio teacher:

1. Teacher as Researcher: Research is inquiry-based and reflective rather than hypothesis-driven (Edwards & Gandini, 2015). Teachers observe and reflect rather than test hypotheses. Teachers also engage in documentation and listening, another form of research and a continuous learning process (Edwards & Gandini, 2015). Teachers challenge norms, reflect, and aim for change (Edwards & Gandini, 2015). Here, we think about the mesosystem and how teacher interactions play roles in their students' lives without directly interacting.
2. Teacher as a Colleague in a Collaborative Network: Reggio Emilia's network is a co-teaching model; teachers work with at least one other teacher, making it an essential collaboration (Edwards & Gandini, 2015). Reggio educators engage in constant professional development and discussions (mesosystem) to analyze their observations of the children to further their research (Edwards & Gandini, 2015).
3. Teacher's Role in Curriculum: Progettazione (PBL) is one of the styles used in Reggio classrooms (Edwards & Gandini, 2015). PBL responds to children's interests and

documented observations and typically includes long-term and emergent projects (Edwards & Gandini, 2015). The Pedagogy of Listening is another curriculum value from Paulo Freire (Manyozo, 2016). Pedagogy of listening presents three forms of listening according to Freire: listening to evidence, listening to ourselves, and listening as a form of speaking (Manyozo, 2016). The goal was to use all these forms of listening to effectively develop practice and build abilities to design intentional spaces for the child (Manyozo, 2016). This is another example of the mesosystem and how it indirectly affects the child.

4. Teacher as a Creator of the Environment: The Reggio Emilia pedagogy values the third teacher– the environment– but the teacher must still be a curator of that environment (Edwards & Gandini, 2015). The teacher creates an inspired space that leads their children to explore (Edwards & Gandini, 2015). Classroom spaces are aesthetically pleasing and well-organized (Edwards & Gandini, 2015). Teachers make outside spaces welcoming and emphasize nature play to encourage relationships with plants and the outdoors (Edwards & Gandini, 2015).
5. Teacher as a Guide for Building Community: Builders of the community are essential with a strong emphasis on including children with special rights (students with disabilities, neurodivergent learners, etc.) (Edwards & Gandini, 2015). Teachers also help build relationships with professionals to build their knowledge (Edwards & Gandini, 2015). For example, Marco, a blind child, engaged with peers to create tactile pathways and sound-based navigation tools after teachers met with his doctors and therapist to discuss how they could help in the classroom (Edwards & Gandini, 2015).

6. Teacher as a Partner with Families: Along with building community, teachers help to strengthen the connection between home and school through building relationships with parents (Edwards & Gandini, 2015). The connection between parents and school is framed as participation, not just involvement (Edwards & Gandini, 2015). Teachers also learn about family culture to integrate cultural diversity into the classroom, making all students feel safe and heard (Edwards & Gandini, 2015). The parent's role has changed over time, and Reggio schools in the US are struggling with defending the role, as some have shifted to personal growth rather than ideological purposes (Edwards & Gandini, 2015).

When children spend up to nine hours at school, teachers become essential mentors in their lives (the microsystem), so it makes sense when Reggio clearly outlines teachers' roles (Edwards & Gandini, 2015).

**Ecological Systems Theory Approach on Youth - Reggio Emilia Implications**

Duerden and Witt (2010) attempted to apply the theories of EST to youth programs. Their research argues that effective programs must intentionally promote positive development by fostering supportive relationships, offering skill-building opportunities, and being an "environment fit." The two authors emphasize the interconnectivity of contexts, urging youth programs to collaborate with families, schools, and other community systems to enhance the development outcomes of their programs. Duerden and Witt (2010) also highlight "a personal environment fit," meaning programs should be designed to meet the participants' diverse needs. Malaguzzi would almost certainly agree with their statements and implementation of EST in youth programming and, in Reggio's case, ECE if he were alive today. The Reggio Emilia educational philosophy aligns with EST because the child is embedded in a network of

relationships (microsystem), including their teachers, peers, and physical learning environment (Duerden & Witt, 2010). In addition, there is a strong emphasis on family-school collaboration (mesosystem) and the influence of community and culture on the curriculum (exosystem & macrosystem) (Duerden & Witt, 2010). EST provides a framework to discuss how children's learning is shaped by the interactions of many systems (Duerden & Witt, 2010).

## Research Concern

Initially this research was an exploration of the Reggio Emilia approach using grounded theory. Research was roughly grouped into three subcategories; teachers, materials, and students. This study evolved into the application of Reggio Emilia principles through an Ecological Systems Theory (EST) lens after realizing the deep connection between the two. The literature reviewed provides insight into the historical impacts of the Reggio approach, details of how the key values fit into Bronfenbrenner's EST, the role and historical implications of child development, the role of the teacher through EST, and finally a study that argues the fit of youth programming to Bronfenbrenner's theory. Overall, this study reinforces prior research on the effectiveness of Reggio Emilia's child-centered approach while offering a new perspective through ecological systems theory.

## Methods

This study utilized an exploratory, non-experimental, phenomenological design rooted in grounded theory to explore the unique aspects of Reggio Emilia schooling and the perspectives of actual educators. Grounded theory is a method in which a theory is developed directly from systematically collected data.

## Participants

I contacted 16 prospective participants, and 10 interviews were conducted for this study. The 10 selected participants were responsive, available to meet within the research period, and excited about discussing their passions in Reggio contexts. The remaining six prospective participants who were contacted were unresponsive and/or unavailable to be interviewed within the research period. I found four participants through personal connections. Five participants were connected via the Boulder Journey School online network group. One participant lived locally. All participants were female-identifying and above the age of 25. Participants' experience in Reggio Emilia-inspired contexts spans from doctoral-level degrees in early childhood development to entry-level jobs at Reggio Emilia-inspired schools. This diversity provides a wide range of input for generating codes, as reflected in the results and discussion sections. Table 1 provides further insight into the participants by stating how long each has worked in the Early Childhood Education (ECE) and Reggio Emilia fields.

## Instruments

All data was collected through interviews with teachers, directors, and educational researchers who have taught in Reggio Emilia-inspired preschools in the United States or have been in administrative positions in ECE specific to Reggio. In total, nine interviews were conducted via Zoom and one in person. The interviews were 25-60 minutes, averaging 35 minutes. The study included ten interview questions (Appendix A), beginning with how participants were introduced to the Reggio Emilia pedagogy, followed by nine questions about collaboration, creativity, and problem-solving in their Reggio Emilia-inspired classroom. After the IRB review, all participants signed and consented (Appendix B) to be recorded for this research study.

**Data Analysis**

After all the data was collected, the recorded interviews were transcribed using Otter.AI and edited for grammatical mistakes that Otter.AI misunderstood, cleaning up when the interviewer and participants spoke, adjusting punctuation throughout the text, and adding participant names for coding purposes. The interview data was then coded using NVivo 14 for Mac into 60 plus preliminary codes in the first cycle (Saldaña). This was followed by second-cycle coding, which began translating codes into themes (Saldaña). Finally, the top sub-themes were again combined, and three themes were assigned through a trial-and-error process working closely with my research advisor.

**Table 1**

*Participant Demographics*

| Participant | Time in Education | Time in Reggio |
|---|---|---|
| 1 | 12 Years | 4 Years |
| 2 | 15 Years | 13 Years |
| 3 | 20 Years | 12 Years |
| 4 | Unknown | 33 Years |
| 5 | 27 Years | ~5 Years |
| 6 | 10 years | 9 Years |
| 7 | 13 Years | 11 Years |
| 8 | 10 Years | 5 Years |
| 9 | 7 Years | 3 Years |
| 10 | 23 Years | 3 Years |

### Positionality

I am a white middle-upper-class female. I acknowledge that my data is a small portion of all Reggio Emilia-inspired preschools. I also acknowledge that I am pursuing a Master's in early childhood education (ECE) at a Reggio-inspired school starting fall of 2025 because of my passion and already built knowledge in this area. This, again, makes me biased and well-positioned for this topic. After visiting Reggio Emilia, Italy, and The Loris Malaguzzi International Centre I became more knowledgeable and excited about this work leading me to dive into this very research. The visit to the training center was inspiring and led to a plethora of questions I was passionate about answering. This positionality shapes how I interpret and analyze the data, as my background and prior knowledge in early childhood education influence my perspective. Acknowledging these factors strengthens my research by ensuring transparency about potential biases and limitations.

## Results

The collected and analyzed data revealed three themes: What Teachers Do, How Teachers Do It, and What Happens to the Children (Appendix C). The themes and their corresponding frequency, sub-theme codes, and interview excerpts are listed below. After coding and creating themes for the interview data, I hypothesized a strong correlation between Ecological Systems Theory (EST) and the Reggio approach. As represented in Figure 2 in the Discussion section, the nestled circles of Bronfenbrenner’s EST align well with Loris Malaguzzi’s key values of the approach.

### What Teachers Do– Theme 1

This study aimed to gain insight and understanding of teachers' roles in classroom spaces and how they help foster a love of learning, creativity, and collaboration. Thus, the insight

developed from this was that Reggio teachers play key roles in fostering space, listening, creating spaces to explore, being researchers, and documenting their children's development proactively. This theme, referenced 267 times across all 10 participants, contains three sub-themes (Table 2).

**Table 2**

*Sub-Themes for Theme: What Teachers Do*

| Sub Theme | Number | Sample Quote |
|---|---|---|
| Documentation | 118 | I feel like documentation should always invoke a memory, and it should always ask a question, and if you're not invoking a memory, you're not asking a question, then you're just putting pretty pictures on. Then after that, what are we really doing? |
| Teacher Roles | 65 | ...the philosophy is very much grounded in a pedagogy of listening. Pedagogical processes that happen emerge from us, documenting, us observing, listening and reflecting, interpreting and documenting the learning of the children, so that we're able to engage in cycles, cycles of inquiry |
| Personal Experience | 84 | Practicing it and learning it has been interesting and just trying to mesh it all together…I try to bring the Reggio and bring in documentation and emerging curriculum and all of that too. |

***Documentation***

Documentation is one of Reggio Emilia's most essential aspects when done correctly. Documentation is meant to record and reflect what the children in the classroom are doing, what they are saying, and how they are exploring; literally, anything they do should be documented to reflect on later, whether as a teacher or as a child. One teacher said, "For me, documentation is I'm writing non-stop." A self-proclaimed Reggio guru shared, "I think documentation also helps…when you're trying to relate to adults and other people who come into your space giving

that perspective of, here's the research behind what they're doing, and here's why this just isn't just junk."

The most consistently spoken idea around documentation is to be flexible, ever-evolving, and show movement. "Seeing documentation is something you're always engaged in and moving away from this idea of documentation as something final." A professor of Reggio studies described documentation as the "right of designing learning experiences, observing learning experiences, reflecting together on those learning experiences, and then moving to the next phase of the cycle." Whatever documentation might be it should propel the children and their learning forward. An educator shared, "Documentation needs to be interactive" … "Documentation, just like everything else, needs to be led and directed by the children." This process is complex and filled with one million ways to do it, but including the children is at Reggio's core. The idea of documentation is incredible, right? Fill your classroom walls with intentionally curated bulletin boards that children feel a part of. But in reality, "It's a lot of work." This report was also consistent. "I think I love the concept of documentation, and I've fallen away from it. Recently, it's hard. It's really hard," another local teacher mentioned.

***Teacher Roles***

The exact role of Reggio teachers differs by classroom, age group, teaching team, etc. This role looks different for every teacher and school. A few things, however, are in common: teachers are constantly adapting and moving to meet their students' needs. One educator shared that her role is "adjusting our environments, our teaching our language, our everything based on what we see, what we actually see, and how we interpret it." Continuing down this same path, it's essential to be open to that change, small or large. "And so, like being open to their suggestions, and not just, you know, verbal suggestions, but their suggestions through their actions," a teacher

shared from experience in a two-year-old classroom. Teachers (mostly) want the spaces to fit the needs of their children, but children are not always going to provide clear feedback on what they want; it might be through their actions. The same goes for their learning, even though we might not be hearing it or seeing it all the time, “And there are tons of things that they've probably learned and done and said and picked up on that I don't even know about, you know, but that just giving them the space to do it, it makes all the difference.”

Teacher roles are complex and ever-changing; it takes an ideally practiced method for a teacher to find their role and how they best fit in. If you are stepping in and being part of the learning action one day or standing back and documenting another day, your role as a teacher is deeply valuable from the eyes of children, and many others. A teacher at a newly founded Reggio school said, “I try to step back and be an observer” and educators at our school share, “You have to shut up and listen,” and that it “takes a very deep listening.”

***Personal Experience***

This sub-theme code included the following: Reggio entry, referencing, prior experience, other school experience, not every school, and Boulder Journey School. Some codes in this sub-theme provide information on how each participant gave entry into the Reggio world and ECE (Table 1). Since names and information about schools and locations are kept anonymous, minimal quotes are provided in this sub-theme.

Many teachers shared the sources of information they have gathered or learned from since being a part of the Reggio community. “So, kind of reference back to the Pedagogy of Listening and really seeing documentation as visible listening and so seeing documentation as a tool for learning and as something that is ongoing,” the Pedagogy of Listening is a rather consistent reference amongst Reggio teachers and this data set and how it has played role in their

teaching. The same educator also shared a Ted Talk from Sir Ken Robinson called “Do schools kill creativity?” that shared a study about children being tested for genius levels (Robinson, 2006). The teacher educators in this study help us understand their pedagogical knowledge and make assumptions about teachers in other spaces too.

**How Teachers Do It– Theme 2**

Now that we understand what teachers in these spaces do, we can better understand how they do it. Thus, after collecting and analyzing data, I posed this question: If Reggio schools are social constructivist and children are shaped by social interactions between children, how does the teacher successfully prepare classroom space, curriculum, and materials to foster a love of learning, space, materials, and community? This theme, referenced 468 times across all 10 participants, contains three sub-themes (Table 3). The sub-themes show us the *how* discussed in the question posed for this theme: classroom spaces, curriculum, and materials.

**Table 3**

*Sub-Themes for Theme: How Teachers Do It*

| Sub Theme | Number | Quote |
|---|---|---|
| Classroom Space | 102 | I'm cultivating geniuses, but you're not, you're just creating a safe space. |
| Curriculum | 205 | I think I'm always going to be like, you don't need to know the alphabet and the letters and the shapes to go to kindergarten, but, like, you should be able to advocate for yourself, and you should be able to speak up for yourself. |
| Materials | 161 | I'm here, you know, pick me up, touch me, move me. Don't feel limited by me. Don't see me as a prescribed kind of material, but a material that invites your thinking, your exploration, your creativity. |

### *Classroom Spaces*

When Reggio teachers prepare their physical spaces, much must be considered before they even meet the children. How should we lay out the classroom? What materials should be out? How fluid is this space? Are they going to hate it? How do I know their interests? As many educators reported in interviews, these questions that bounce around in teachers' heads before starting the year can be overwhelming. However, one teacher and Reggio guru shares,

> ... that when you start day one, you just have a blank slate. You have a blank slate. There's no lesson plan there. There's nothing. You don't have artwork already hung up on the wall because the children haven't made anything. You don't have specific niche materials in your classroom. How do you know that that's what they're interested in?

The interviewer followed up by asking *how*; *how* do you set up the space then? *How* do you make it for the child on day one with minimal information? “I think when you start talking about setting up a classroom, and you start talking about setting up materials, I think in the very beginning, it's just really important that you do have those large, open-ended pieces.”

Another recurring subject in the *classroom space's* sub-theme was that classroom spaces must be flexible for purpose and use. An educator for a master's program specializing in Reggio Emilia teaching shares that we should “treat...the classroom space as flexible and responsive, and so our environments are ever changing; they're evolving.” Along with creating flexible spaces, many educators emphasized the importance of classroom spaces having different purposes. A professor of Reggio studies told the interviewer, “One of the things you'll learn when you study Reggio is setting up different spaces for different purposes.” One of those different purposes and flexibility aspects could even be, “just taking away barriers…encouraging them to… move their bodies and move with each other.” Movement, flexibility, and adaptability seem to be key aspects when it comes to creating a classroom space in a Reggio environment.

Above all, the classroom space should be where children feel ownership over and love to be. A Boulder Journey School (BJS) educator proudly said, “Our environments are co-created

alongside children and families, communities based on our observations, based on the children's interactions with the material, then with the environment." These co-created spaces make spaces that children love and create spaces where they feel like they belong.

***Curriculum***

Creating a curriculum that fits your children best is a process, no matter what pedagogy you might follow. For some teachers, it came down to listening, observing, listening some more, and then feeding that interest. One teacher at a newly started Reggio Emilia-inspired school said it is simply "slowing down and just looking, watching, listening to all the things." Another teacher, who has gone through a Master's ECE degree program said, "You have to shut up and listen," as she discussed her top importance for how she creates a curriculum that is genuinely driven by child interest.

It sounds rather simple, right? Just listen, watch closely, document, and act on those interests, right? Not so much, trying to find 15 shared interests between your children in the first week of school to then land on a project investigation is nearly impossible. A doctoral-level professor shared her school experience,

> Honestly, in our school, there became an expectation in the community that our classrooms would land on a deep investigation, on a bigger project, pretty quickly, and we would say to the parents, yes, that would be nice, but it usually takes a good two months for children learn about their the space and their friends and the materials and how to use them, and it takes a little while like the curriculum is really about acclimating to this learning environment together.

In Reggio context, it takes time, patience, and adaptability for deep learning to happen. An educator at a new Reggio school said, "Sometimes it's a small group of kids that are really interested in something. And you can keep going back with them, and other kids might come and go in and out of that." So, it does not have to be all 15 children at once. You keep going back to those who are interested, and as things flux and change, so do the interactions with the children.

On the other hand, sometimes those investigations happen with no planning at all, “I didn't pre-plan this long-term investigation that ended up unfolding,” another Reggio educator shared.

Regarding planning a curriculum, Reggio teachers love their planning time. As interview data revealed, this is a time for teachers and administrators to share what they have been noticing in the classroom, things like how James has been loving using the paint to mix new colors or how Emily has been sharing her excitement with her friends about how much she knows about the human body. Whatever it may be, this time is essential for teachers to plan with their support team. Educators at BJS have this down to a tee,

> That afternoon, we were talking while the children were asleep and started to shift our focus because of things that the children were saying, we had one child in particular. His name was …, and he was the little dude of the bunch…he kept saying, the monster in the mud is going to get us. And everyone would laugh and scream and run away, and then they would all run back and jump in the mud puddle…Us realizing that we were allowing our own biases to influence what we thought they were interested in, and taking a moment to be able to be introspective, to take a moment where she [co-teacher] and I can sit on interrupted for an hour and a half or two hours.

Without the key time that this educator and their co-teacher had, they would never have uncovered this wild class of two years that was indeed interested in doing things that were deemed *naughty* and not a nature connection like the teachers initially thought.

It can be hard when you, the teacher, land on the interest you have been searching for, and you are entirely wrong. A local educator says that sometimes you must “swallow your pride and be like you can walk away like you don't have to do my idea.” When discussing essential aspects of building a curriculum for ECE in Reggio contexts, the same educator said, “I'm always going to be like, you don't need to know the alphabet and letters and shapes to go to kindergarten, you should be able to advocate for yourself, and you should be able to speak up for yourself.”

### *Materials*

Materials can be one of the most exciting parts of classroom space for both the child and the educator, but again, selecting the right ones for the right time can be challenging. Despite this difficult challenge, you can always assume the children in your classroom will use the materials correctly, right? A Colorado educator disagrees. She shares, “No matter what materials you bring in, you can never expect them to use it in a certain way.” And for that, there is no correct way to do something. No wrong or right. The same educator discusses,

> Sometimes, you're going to give a child clay, and they've never had clay before in their life you can expect them to understand how to use it, and you can guide them like, obviously, we're not going to put it in our mouth… that's not safe, but we're also not going to dictate and demand. “Well, you need to cut it with this, and you need to stamp it with this.” Checking our expectations makes it so much easier than to have children interact with those open-ended materials.

There is no strict guide for choosing the perfect materials for your Reggio classroom, and you cannot deem a material Reggio because Reggio is a pedagogical practice, “There's no such thing as a Reggio material. There's a Reggio framework...whatever you have in your classroom then fits into that framework based upon how you use that.” However, one of the more common *Reggio*-esque materials is loose parts. “I also like to have a lot of loose parts and just for them to work with,” mentioned one educator. Another shared, “I love loose parts and allowing children [to explore] various open-ended materials and, yeah, that's the best way to, like, foster creativity in children and allowing them to use them in the ways that they want to”

Many others shared how important it is to have materials that encourage collaboration. “You can start to see them engage with the material and then want the child next to them to also engage with said material.” Another interviewee said at their school they’re “think[ing] about materials…with interaction in mind.” Along with collaboration, children should be challenged with the materials they are using. A professor working closely with Reggio schools in the US

and Italy says, “They’re being challenged to work with more complex materials.” She continued to share how complex materials should grow, adapt, and change as the children move through the childcare center.

**What Happens to The Children– Theme 3**

The final theme connected the what and how of the teachers– the children! After data was collected and analyzed, a hypothesis was posed: Reggio schools are successful because they intentionally incorporate the child through centering the child, the child’s perspectives, collaboration, community, and a focus on positive and adaptive development. This theme was referenced the most throughout interview data, with 539 references from all 10 participants. This theme contains four sub-themes (Table 4).

***Table 4***

*Sub-Themes: What Happens to the Children*

| Sub Theme | Number | Quote |
|---|---|---|
| Development | 114 | The child has 100 ways of seeing, exploring, and 100,000 more. |
| Cooperation | 157 | I think children have a natural drive to connect with one another and a natural inclination to find out more about each other in their world |
| Child-Centered | 196 | How can we cater to those interests to provide a stimulating environment that really sparks creativity? |
| Child Perspectives | 72 | …really seeing our environments as flexible, and that the children are very much protagonists in their own, you know, learning and in their own environment as well. |

***Development***

Development plays a considerable role in any ECE program and is critical for laying the foundation for future learning, behavior, and overall well-being. The 0-8-year-old brain develops rapidly, so this time is crucial for positive and productive development.

Development is backed up by so much research, and that research may or may not be what we see in the classroom. One educator shared that her two-year-olds loved to play together, which is not "typical" for a two-year-old development; she shared that, "the research tells us that shouldn't be happening, but it is." She continued to explain how they adapted and adjusted to the new collaborative exploration the two-year-olds were going through. Children develop on their own track; ECE and Reggio schools are there to support their development. One interviewer had a powerful statement.

> The growth and development that children have as toddlers, as pre-K, at different ages and stages. We also know that children grow and develop on their own trajectory, their own journey. They have their own journey of growth. We frame our work with them in a way that really honors their uniqueness…who they are as individuals, regardless of what their developmental status is.

The COVID-19 pandemic was a huge topic of discussion among at least half of the participants. One teacher shared a noticeable decrease in children's interactions with each other. They said, "since COVID…I've seen a massive decrease in collaboration with children." Another shared the technological aspects changing at their center, "Since COVID, we have been dealing with a lot of technology withdrawal, because at home they are on iPads or in front of the TV or things like that." Another even went on to say it affected children's creativity and imagination, "pre-COVID, we definitely had more imaginative kiddos." Reggio guru shared that they believe it will take another decade to get back to where we were before COVID– "We had the highest reading scores of all time, and a lot of that was due to really good early childhood education, a

lot of really good early childhood interventions, and we were seeing schools embrace [this] collaboration."

***Cooperation***

Community and collaboration are inevitable in the classroom, especially in ECE classrooms. While some research shows that children under two do not play together, what is happening in the classroom tells us otherwise. "I think the collaboration is just built into it. Yeah, from the minute they walk in the door," one educator tells us. It's happening all the time; children have a drive to connect. "I think children have a natural drive to connect with one another and a natural inclination to find out more about each other in their world," shared a BJS educator. She continued to explain how much they see it at their school. "I see it everywhere. I think, you know, one of the things we talk about at BJS is just how social children are."

The teachers may scaffold this natural connection through collaboration. An educator shared how their space, set up by teachers, helps encourage collaborative play,

> For example, in our infant room, there's a wind tunnel, and how that wind tunnel is spaced, and how you space yourself as the educator in the room can make it possible for that social interaction to flourish, instead of boarding it down.

A local teacher shared that for her students, collaborative art is how they best interact and create together. "I think collaborative art is the best way to have children learn how to work with each other." Once you start noticing that collaboration, you will not stop seeing it, shared by a teacher. "Collaboration is great, a great thing to really sit and observe, because once you start seeing them doing it, and you start noticing it all the time." Another example from a classroom teacher, "They're starting to do some parallel play. They're starting to do some collaboration here. They're starting to invite each other into a story and into a scenario"

Watching collaboration and community flourish as a teacher is so fun, and in Reggio contexts this balance between individual growth and group growth is essential, "Group learning

is essential to this approach," shared a longtime Reggio educator. "You have to be thinking about the dynamics among the individuals as they co-construct learning together," a powerful statement on the dynamics shared by a long-time educator.

***Child-Centered***

When it comes to Reggio Emilia-inspired preschools, the child is always at the center, so it was no surprise when results indicated that teachers were reflecting this same value. One educator said it word-for-word, "really strong image of the child at the center," as they explained what Reggio is for them. This child-centered focus is translated to many areas of the classroom, most commonly child interest, "ultimately following the child's lead really understanding what sparks their interest, and then they'll naturally stay curious." If you keep following this interest, powerful learning can happen, "their interested in it, they're still talking about it… I'll ride it out." A teacher from a newly established Reggio school shared that for them child-centered and child interest can lead to a fantastic development of creativity, "I think the creativity really stems from what the children are interested in."

Another area where child-centered aspects show in the classroom is the physical space. One educator shared that the materials, cubbies, cabinets, sink, etc., need to be child-sized and just for them, "it's their space, and it's comfortable, and it's geared towards their size and their height." Along with feeling ownership and comfortability, a teacher shared, "When you allow them that time and that space to feel comfortable and understand each other and figure out the material and figure out that you're not going to take the material away." Being comfortable in a space is also child-centered.

Another Reggio point is that of the child as a citizen, which, at first, can be off-putting– *they are only a child.* But the point of this claim is respect. By putting the child at the center of

classroom, learning, and development, we are showing them respect and that they too are a whole human who has opinions, thoughts, and a mind full of imagination, “you know, yes, they are children, but they're also…citizens of our community, and they're important citizens.”

### *Child Perspectives*

Children thrive when recognized as capable, autonomous individuals who actively shape their own learning experiences. The concept of looping—where teachers and students remain together across multiple years—strengthens relationships between children, families, and educators, allowing for deeper engagement and trust. An educator shared that this can help with that child relationship, “The really good thing about looping is that if you already have your relationships formed among the children, the families, the teachers with the parents with the children, then you can go deeper.” This foundation creates an environment where children feel heard and respected, reinforcing the belief that is rather common in Reggio contexts: “If we truly believe that they're capable human beings and that they're citizens and that they deserve to be heard, we have to treat them like it.” An educator shared,

> Children should be respected as whole people, not just adults in training. They have thoughts, feelings, and ideas that are just as important as those of adults, and they deserve to be treated with the same level of respect and consideration.

Educators who adopt this mindset provide opportunities for children to explore their interests freely, ensuring that learning remains child-directed rather than forced.

The Reggio approach emphasizes flexibility in both learning environments and teaching practices. An educator shared, “Teaching young children is the delicate art of stepping in and stepping back. You want to provide enough support so they feel confident, but not so much that you take away their independence and problem-solving skills.” By offering an environment rich in opportunities for exploration, children gain the freedom to make choices, work in small

groups, and engage with topics that truly interest them. Another educator shared a successful project that stemmed from a child's interest and perspective,

> One of my favorite projects was something we did, like an insect study. At one school, we did an insect study, and it just stemmed from kids loving all different kinds of insects and wanting to see them under a magnifying glass.

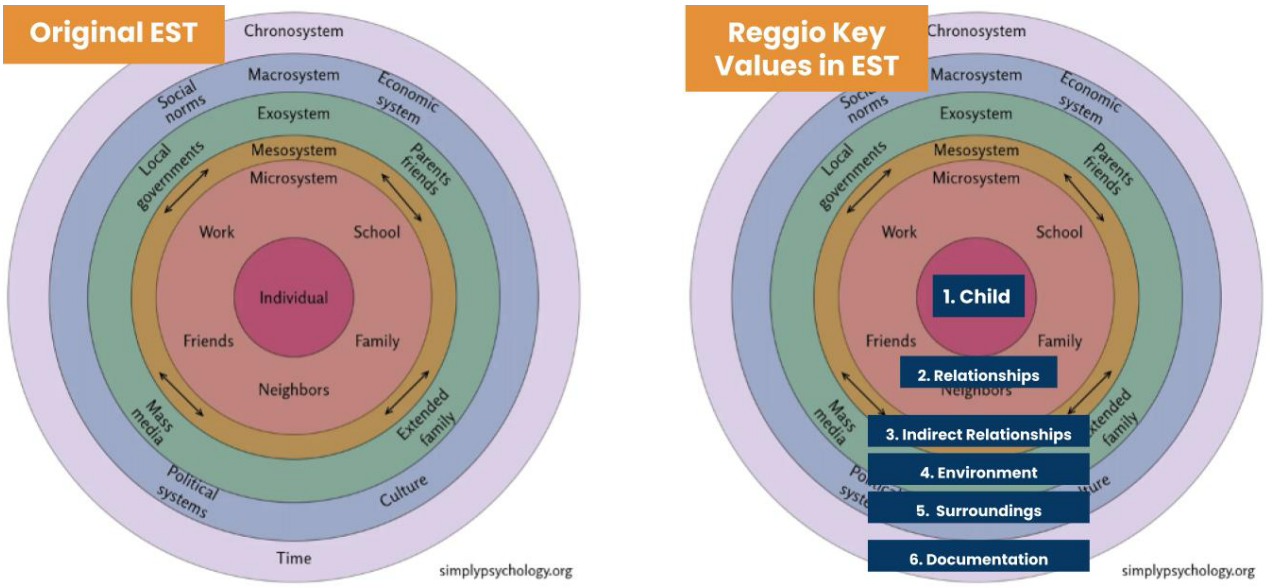
As children take ownership of their learning, they develop confidence and independence, demonstrating their capability when given the space and respect to do so. Ultimately, the educator's role is to recognize and foster this autonomy, ensuring that children are active protagonists in their learning journeys.

## Discussion

This study examined the implementation of Reggio Emilia-inspired education. Grounded theory coding results suggest a correlation to Ecological Systems Theory (EST), focusing on what teachers do, how they do it, and the resulting impact on children. This strong connection (Figure 2) has not been identified in the literature thus far and can help educators explore new approaches, draw new conclusions, and curate developmentally appropriate curricula using both the key values of the Reggio approach and Bronfenbrenner's nested EST circles. Combining EST with Reggio principles may help guide educators to step out of the norm and explore two systems that work well together in ECE. The findings below show that teachers play a facilitative role, using emergent curriculum and documentation to shape learning, thus fostering autonomy, creativity, and collaboration in children. These results share a story– from teacher to classroom to child. Results align with existing literature on constructivist education while offering new insights into how environmental influences shape Reggio-inspired classrooms.

***Figure 2.***

*Alignment between Bronfenbrenner's EST and the Reggio Emilia pedagogy*. Visual created by Emma Markland.




1. Child: By placing the child in the center of designing space, building curriculum, and curating relationships, we can help foster a positive and safe learning environment where positive development happens (Malaguzzi, 1993b).
2. Direct Relationships : Loris Malaguzzi (1993a) writes that he aims to create a school that is active, inventive, livable, documentable, and communicated between three protagonists: the children, the teachers, and the parents.
3. Indirect Relationships : This also correlates strongly to Malaguzzi's emphasis on incorporating parents in the school, classroom, development, and overall learning (Malaguzzi, 1993a).
4. Environment : Malaguzzi believed that if we start seeing the environment as one of the educators in the room, we can begin to notice how it impacts the child's learning (Strong-Wilson & Ellis, 2009).
5. Surroundings: Education is not entirely based on relationships; there are other factors such as development, materials, etc., but relationships do set the foundation for much of the learning that occurs in the education system (Malaguzzi, 1993a).
6. Documentation: Documentation is an evolving piece to share with professionals, families, and children that showcase the learning process over time (Azevedo et al., 2022).

**The Role of Teachers in Reggio Emilia Classrooms– Microsystem and Mesosystem**

According to extensive research and the results from this exploratory study, I hypothesize that Reggio teachers see themselves as co-learners and facilitators rather than traditional instructors of learning. The hypothesis from Theme 1 is that Reggio teachers play key roles in fostering space, listening, creating spaces to explore, being researchers, and documenting their children's development proactively. Edwards and Gandini's (2015) research on the evolving role of Reggio teachers suggests six roles of the Reggio teacher, Teacher as: Researcher, Colleague, Curriculum Developer, Creator of Environment, Guide in building Community, and Partner with Families. These roles align with Vygotsky's perspectives, where teachers provide guided support while allowing children to construct their knowledge in social environments (Newman, 2018). Teachers in this study described observing their children's interests, asking open-ended questions, and encouraging self-expression rather than directing learning through rigid lesson plans. One educator shared she is constantly, "adjusting environments, our teaching, our language, our everything, based on what we see…and how we interpret it." Being an educator in the Reggio classroom takes deep listening and the art of stepping back for the betterment of your children. The code word *listening* was noted 26 times across six participants– suggesting this is a rather important role of the educator. This supports Malaguzzi's (1996a) view of the teacher as a partner in learning rather than an authority figure, as shared in the literature.

Another aspect of *What Teachers Do* is documentation– the portrayed beautiful living wall art that is ever-changing and shows curated ideas, art, and photographs. Azevedo et al. (2022) state that documentation is an ever-evolving piece to share with professionals, families, and children that showcases the process of learning taking place. These are typically aesthetically pleasing pieces that make the classroom look beautiful. However, when talking with educators, I

learned that achieving a perfectly documented piece takes a lot of work, and that challenge was not reflected in the literature. Teachers shared, “It's a lot of work” or “I think I love the concept of documentation, and I've fallen away from it. Recently, it's been hard. It's really hard.” Documentation in Reggio Emilia classrooms aligns with EST by serving as a mesosystem process, connecting the child’s learning experiences across different environments. At the mesosystem level, documentation strengthens the relationship between school and home by providing parents with tangible insights into their child’s development, fostering deeper engagement and continuity in learning– that is, if teachers can complete it despite the formidable challenge.

From an ecological systems perspective, these findings highlight the microsystem’s role in shaping children’s learning experiences. The teacher-child relationship functions as a way children interact with their environment from a very young age. As EST tells us, positive interactions within this microsystem foster developmental growth (Guy-Evans, 2022). In addition, the mesosystem enhances teachers’ interactions with children, like parental involvement and collaboration with other educators, reinforcing the interconnected nature of learning environments, Reggio schooling, and EST. As shown in the results, an experienced educator shared how they use planning time to intentionally discuss the day’s events and, in turn, make conclusions about child interest and direction, “That afternoon, we were talking while the children were asleep, and started to shift our focus because of things that the children were saying.” These educators successfully used the mesosystem in collaboration with each other and the child.

While teachers in this study did not specifically state their roles per Edwards and Gandini’s (2015) research on the evolving role of Reggio teachers, they did state their roles are

to foster a safe space, guide the child in learning, step away, and listen, and be incredibly adaptable to changes, child interest, and new learning opportunities.

**How Teachers Implement Reggio Emilia Practices– Mesosystem and Exosystem**

According to my findings, prior research, and connections to EST, teachers implement Reggio Emilia-inspired practices through the design of the classroom environment, use of materials, and curriculum (emergent, project-based, etc.), all of which reflect the key values of the Reggio approach. From an EST perspective, these elements interact across multiple levels, shaping children's learning experiences within and beyond the classroom (Guy-Evans, 2022).

At the microsystem, the classroom environment functions as a "third teacher," a core value in Reggio Emilia education (Edwards & Gandini, 2015). However, this was referenced only eight times across just two participants. Perhaps educators do not fully comprehend the implications of the third teachers as Malaguzzi would have wanted them to. The low number of codes for "third teacher" tell us that the Reggio approach is lacking here and should draw on the research and learnings from Bronfenbrenner highlighting the impact a child's environment has on their development, learning, and overall well-being. Reggio guru in this study shared, "when we talk about fostering that third teacher, fostering that environment, using those materials a lot of times, it's your attitude, I think that affects it, not even the materials themselves." Teachers structure learning spaces to be open, flexible, and responsive to children's interests, fostering independence and exploration. Another proficient educator said, "think about designing the classroom, to nurture the rights of children and the rights of childhood," which directly ties to the Hundred Languages of Children (HLC) and the roles of the teacher. This can imply that this level of EST takes considerable time—connecting to the chronosystem as well. Materials are carefully curated to encourage sensory engagement, representation, and collaborative problem-

solving, reflecting the research on the importance of the environment in constructivist learning (Malaguzzi, 1996b). Unlike traditional classrooms, Reggio-inspired classrooms are designed to promote movement, choice, and interaction, reinforcing the child as an active participant in their learning. Another EST level reflected here is the exosystem– how school policies and educational changes shape the teachers' practice, and then the child. Reggio teachers pride themselves in always fine-tuning the craft through professional development– the exosystem influence. With our ever-evolving political climate, changes implemented by the government may have massive impacts on the child.

**Child Outcomes– Microsystem, Chronosystem, and Macrosystem**

The final finding of this study is that Reggio Emilia-inspired education fosters children's autonomy, creativity, and collaboration– the outcome in the child. This indicates success because they intentionally incorporate the child through centering the child, the child's perspectives, collaboration, and community, and they have a focus on positive and adaptive development. Teachers described how children take ownership of projects, engage in problem-solving, and work collaboratively with peers, reflecting research on self-directed learning. As shared in the Results section, teachers enhance their students' collaboration through art and make the physical classroom space a focus that immediately encourages collaboration instead of hindering it. "I think children have a natural drive to connect with one another and a natural inclination to find out more about each other in their world," shared a BJS educator. Another educator believed that "group learning is essential to this approach." Collaboration was coded 93 times across all 10 participants, making this one of Reggio's most known aspects in the eyes of modern-day educators. As we reflect on the research, this seems accurate; Lev Vygotsky and Malaguzzi

would be proud that this is one of the most noted outcomes (Jafari et al., 2015; Malaguzzi, 1993a).

Through an EST lens, these findings highlight the importance of the microsystem in shaping developmental outcomes. An educator shared details about how children develop: “They have their own journey of growth. We frame our work with them in a way that honors their uniqueness, their uniqueness, who they are as individuals, regardless of what their developmental status is.” Children’s experiences are also influenced by macrosystem factors, such as cultural attitudes toward early childhood education. Future research should examine how macrosystem influences shape the adaptation of Reggio-inspired practices in different cultural contexts. Lastly, the chronosystem can influence long-term engagement and its impacts on child development over time. As discussed, development happens over time, bringing that larger view that the chronosystem provides into play (Guy-Evans, 2022).

**Why This Matters**

This study highlights the interconnected nature of the three themes—what teachers do, how they do it, and what happens to children—demonstrating how they tell a powerful story about teaching and learning in early childhood education (ECE). At the center of this story is ecological systems theory (EST), which serves as the backbone for understanding the relationships between teachers, children, and the broader educational world. The findings show the significance of a child-centered and inquiry-driven approach for educators in Reggio Emilia settings.

For teachers outside of Reggio Emilia, these insights offer a unifying theory for how they engage with children, structure learning experiences, and view their role in the classroom. The Reggio Emilia approach positions teachers as co-learners, guiding exploration and collaboration

rather than instruction. Other educators can draw from this model by fostering autonomy in children's learning, incorporating reflective practices, and embracing a new curriculum that responds to students' interests and needs.

The Reggio Emilia philosophy challenges traditional schooling by questioning structures, assessment techniques, and hierarchical relationships. It proposes an alternative vision where learning is deeply relational, context-driven, and guided by children's natural curiosity. This approach encourages teachers to see themselves as facilitators of knowledge rather than gatekeepers, opening space for exploration, creativity, and collaboration. In doing so, it pushes back against schooling that prioritizes efficiency and standardization over deep, meaningful learning experiences– in turn, creating space where children love to learn.

## Limitations

While this study provides valuable insights into EST as a theory to frame Reggio Emilia education, several limitations must be acknowledged. First, the findings are based on teacher perspectives, which are insightful but may not fully capture children's lived experiences. Future research could incorporate observations or child interviews to provide a more comprehensive picture of what is happening in the child vs. the teacher to create a whole story. This story adds to the depth of this already established research here and adds more layers that will make it compelling to educators. Additionally, this study was conducted with all female and white-presenting participants, making this just one part of the Reggio story. Future research should explore how other EST aspects—such as the impact of government policies, teacher training programs, race, and cultural perceptions—shape the implementation of Reggio principles worldwide considering the socioeconomic status of the child, families, and educators to make a well-rounded and more diverse research study. Overall, this research is a start and demonstrates

the strong correlations between EST and the Reggio pedagogy, however, there is a need for more diverse research in participants, location, socioeconomic status, child, unique families, etc. to create a truly rounded out research study.

## Conclusions

This study explored the Reggio Emilia approach through the lens of three themes determined by analyzing coded data: what teachers do, how they do it, and what happens to the children. The findings show that Reggio Emilia's emphasis on child-led learning, relationship-based teaching, and reflective practice fosters a positive environment. The literature review established a foundation for understanding the key principles: historical perspectives, the role of the teacher, and Bronfenbrenner's Ecological Systems Theory (EST) within the conversations of the Reggio Emilia model. Through the Results and Discussion, it became evident that this approach cultivates creative growth and a sense of autonomy, community, and love of learning among children, starting in preschool.

While existing research highlights the effectiveness of Reggio Emilia's child-centered, inquiry-based approach, there is a need for further exploration of how other environmental influences continue to shape Reggio education worldwide. Cultural, socioeconomic, and policy changes across countries impact the adaptation of Reggio, but little research has examined how these factors influence implementation. Bronfenbrenner's EST suggests that interactions within and between microsystems, mesosystems, exosystems, and macrosystems shape educational experiences, making it crucial to investigate how this affects Reggio-inspired practices.

While social, cultural, and economic barriers may limit the full adoption of this philosophy in traditional schools, small shifts, such as valuing children's voices, fostering inquiry and project-based learning, and reimagining the teacher's role, can bring some change,

which is a start. EST serves as a framework for rethinking how education is directly or indirectly impacting the image of the child–another staple of Reggio and Malaguzzi's vision.

This study enhances the idea that education should not be a rigid structure forced on children, but rather a living, evolving process that is shaped by relationships, curiosity, and reflection. Bronfenbrenner's EST provides us with the backbone of nested systems that play crucial roles in how children are impacted by relationships, systems, and time. The Reggio Emilia model and EST serve as inspiration for transforming early childhood education in ways that are responsive, equitable, community-based, and deeply meaningful. OBJ

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**Appendix A.** Interview Questions

Interview questions were not all asked in this exact order.

1. Tell me about yourself and your teaching journey! How long have you been teaching? What made you want to teach? Why did you choose to use a Reggio approach?

2. How do you create an environment that fosters creativity and exploration in your classroom? Can you share an example of how this environment has inspired a child's creative process?

3. How do you use your classroom space and materials to support the interests and developmental needs of the children? Give an example of a space or material that has evolved based on the children's input.

4. Describe a situation where a child's idea or interest led to an unexpected direction in your curriculum. How did you adapt to this shift, and what was the impact on the learning experience for you and the children?

5. Can you describe a memorable project or activity that you facilitated in your classroom? How did you choose it? What materials did you use, and how did the children engage with them?

6. In what ways do you encourage collaborative learning among your students? Can you provide a specific example of a group activity or project that was particularly successful? What does this look like when you 'set' up your classroom?

7. How do you balance individual learning needs with group dynamics in your classroom? Share an instance where you successfully managed to address both individual and group needs simultaneously.

8. Can you share a story about a time when students worked together to solve a problem? How did their collaboration contribute to the solution, and what did you learn from observing their process?

9. Tell me about the role that documentation plays in your teaching practices.

10. Reflecting on your experience with Reggio Emilia practices, how have you seen children's creativity and problem-solving skills evolve?

**Appendix B.** Reggio Emilia Thesis Consent Form

Emma Markland
Supervisor: Howard Drossman
Colorado College Department of Education
Department Phone Number: (719) 389-6146
e_markland@coloradocollege.edu

**Key information about this research study**
The following is a summary of this study to help you decide whether to be a part of the study. More detailed information is provided later in the form.

You are invited to take part in a research study about Reggio Emilia-inspired schools and how the materials in such spaces promote creativity, problem-solving, and collaborative learning.

**What is the purpose of the study?** The purpose of this study is to gain insight into Reggio Emilia-inspired-spired schools and how the materials in the spaces promote creativity, problem-solving, and collaborative learning. In this study the researcher will learn about the *why* in Reggio Emilia-inspired classrooms; *why* they work? *Why* are they used in such detail?

**What will you be asked to do if you participate in the study?** Participants will answer eight to ten questions (depending on time) and give a brief introduction about themselves, their place of work, and their experience in Reggio Emilia-inspired schools.

**How long will it take you to participate in the study?** Each interview will take 30 - 45 minutes to conduct.

**What are the reasons you might choose to volunteer for this study?** Reggio Emilia inspired school directors and teachers will be excited about talking about their passions. Participants are contributing to a better understanding of themselves, their school, and a future Reggio Emilia educator.

**What are the reasons you might choose not to volunteer for this study?** We do not expect you to experience any kind of harm or discomfort if you participate in this study, beyond what you would experience in everyday life.

**Do you have to take part in the study?** Taking part in this study is completely voluntary. You should only decide to take part in the study because you want to do so. If you choose to be in the study, you can withdraw at any time without consequences of any kind. Participants may choose to skip any questions if they desire. Participating in this study does not mean that you are giving up any of your legal rights.

**What if you have questions, suggestions, or concerns?** The person in charge of this study is Emma Markland. You can contact Emma at e_markland@coloradocollege.edu or (719) 389-6146.

If you have any questions about whether you have been treated illegally or unethically, contact the Colorado College Institutional Research Board chair, Dr. Amanda Udis-Kessler, at 719-227-8177 or audiskessler@coloradocollege.edu.

Detailed information about this research study

**Why are you being asked to take part in this research study?** You are being asked to take part in this study because you are a Reggio Emilia-inspired school director, or teacher, or have previously been in such a position, or will soon be in such a position.

**What is the purpose of this study?** The purpose of this study is to gain insight into Reggio Emilia-inspired schools and how the materials in the spaces promote creativity, problem-solving, and collaborative learning. In this study I will learn about the *why* in Reggio Emilia-inspired classrooms; *why* they work? *Why* are they used in such detail? This is a thesis research study.

**What will you be asked to do if you participate in the study? Participants** will answer eight to ten questions (depending on time) as well as a brief introduction about who they are, their place of work, and their experience in Reggio Emilia-inspired schools.

The researcher will use audio recording for research during the interview. All audio recordings will be stored on a computer and deleted after use. All participants' names will be removed before being placed into the research paper.

This study will be taking place between September 2024 and January 2025 at different times and dates.

**Will you be told everything about what is happening to you and about what you will be asked to do in the study?** This study does not involve any deception. This consent form describes exactly what you will do and what will happen to you in the study.

**How long will it take you to participate in the study?** Each interview will take 30 to 45 minutes to conduct. If required and with prior permission, the researcher may follow up with more questions via email.

With whom will you interact during the study? Emma Markland (interviewer and researcher)

**Is there any way that being in this study could cause you harm or discomfort?** We do not expect you to experience any kind of harm or discomfort if you participate in this study, beyond what you would experience in everyday life.

**Are there any ways that being in this study will benefit you?** Reggio Emilia inspired school directors and teachers should be excited about talking about their passions. Participants are contributing to a better understanding of themselves, their school, and a future Reggio Emilia educator.

**Who will know about your participation in this research, or about what you said or did in the research?** The researcher, Emma Markland, and her thesis advisor, Dr. Howard Drossman, will be the only people who know about this data. Once the data is collected it will be coded and sorted with coding software. Once the research project is concluded, the data will be deleted from the computer it is stored on. All participants' names will be anonymized in the final thesis paper.

Due to the nature of this thesis-level paper, the participant pool is small, 7-10. Participants might be able to be identified, but the researcher will take all precautions to keep confidentiality.

**What will happen to your information after this study is over?** Once the research has been concluded, all of the data, audio recordings, etc., will be deleted.

**What happens if you do not want to participate in this study?** It is not required that participants take part in this study. There will be no penalty if you choose not to participate.

**What happens if you start to participate in the study but change your mind?** If the participant at any point decides to step away from this study, there will be no harm or penalization for such action.

**What happens if you participate in the study and get injured or have other problems as a result of your participation**? This is little to no likelihood of physical, psychological, or any other form of harm that could reasonably be expected to result from participating. If there are any participants, contact the researcher as soon as possible.

**Who can you talk to if you have questions about the study?** If you have further questions about this study, please contact the Colorado College Education Department at (719) 389-6146 or my thesis advisor, Dr. Howard Drossman at hdrossman@coloradocollege.edu

If you have any questions about whether you have been treated in an illegal or unethical way, contact the Colorado College Institutional Research Board chair, Dr. Amanda Udis-Kessler at 719-227-8177 or audiskessler@coloradocollege.edu. Dr. Udis-Kessler can be reached by mail at the following address:

Dr. Amanda Udis-Kessler, IRB Chair
Colorado College
14 E. Cache la Poudre Street
Colorado Springs, CO 80903

**Statement of Consent to Participate**: I have read the above information and have received answers to any questions. If I have more questions later, I have been told who to contact. By signing this document, I affirm that I am 18 years of age or older and consent to take part in the research study of Reggio Emilia-inspired schools. I understand that I will be given a copy of this form to keep for my records.

| _____ | _____ | _____ |
|---|---|---|
| Participant's Signature | Participant's Printed Name | Date |

This research involves audio recording. Check one of the following options.

_____ I agree that my participation in the study may be audio recorded.

_____ I do not agree that my participation in the study may be audio recorded but I am willing to participate if audio recording is not used.

This research involves video recording. Check one of the following options.

_____ I agree that my participation in the study may be video recorded, and I agree to sign a photo/video release form.

_____ I do not agree that my participation in the study may be video recorded, but I am willing to participate if video recording is not used.

I, Emma Markland, have explained the study to the participants and answered all their questions. I believe that they understand the information described in this consent form and that they freely consent to participate in the study.

| _____ | _____ | _____ |
|---|---|---|
| Researcher's Signature | Researcher's Printed Name | Date |

**Appendix C**

NO WAY. THE HUNDRED IS THERE

The child
is made of one hundred.
The child has
a hundred languages
a hundred hands
a hundred thoughts
a hundred ways of thinking
of playing, of speaking.
A hundred, always a hundred
ways of listening
of marveling of loving
a hundred joys
for singing and understanding
a hundred worlds
to discover
a hundred worlds
to invent
a hundred worlds
to dream.
The child has
a hundred languages
(and a hundred hundred
hundred
more)
but they steal ninety-nine.
The school and the culture
separate the head from the
body.
They tell the child:
to think without hands
to do without head
to listen and not to speak
to understand without joy
to love and to marvel
only at Easter and Christmas.
They tell the child:
to discover the world already
there
and of the hundred
they steal ninety-nine.

They tell the child:

that work and play

reality and fantasy

science and imagination

sky and earth

reason and dream

are things

that do not belong together.

And thus they tell the child

that the hundred is not there.

The child says:

No way. The hundred is there.

Loris Malaguzzi (translated by Lella Gandini)

**Appendix D.** Code Tree