WEAVING ROUTINES WITH MEANING: towards a pedagogy of connection in times of digital culture in childhood

TEJIENDO RUTINAS CON SENTIDO: hacia una pedagogía de la conexión en tiempos de cultura digital en la infancia

TECENDO ROTINAS COM SENTIDO: por uma pedagogia da conexão em tempos de cultura digital na infância

Vanusa Eucléia Geraldo de Almeida[1] iD
Elisabete Cerutti[2] iD

Abstract
This article examines the challenges faced by Early Childhood Education within a connected society marked by Digital Information and Communication Technologies (DICT), which have transformed the ways we interact, produce knowledge, and learn. The problem guiding this study is to understand how pedagogical routines can integrate the use of DICT in an ethical and sensitive manner, aligned with the development of children aged 4 and 5, who are already immersed in digital culture from an early age. The objective is to analyze the role of routines in the school context and to investigate how the Pedagogy of Connection can contribute to practices that articulate technology, playfulness, and children's rights, from the perspective of the Sociology of Childhood. Methodologically, this is a theoretical, qualitative, and exploratory study based on an analytical literature review in indexed databases, selected through keywords such as Digital Technologies, Routines, Early Childhood Education, and Childhood. The study is grounded in authors such as Sarmento (1997), Barbosa (2006), Kenski (2012), and Lévy (1999), who view children as active social subjects and producers of culture. The results indicate that the use of DICT should not replace play, but rather enhance it through bodily expression, investigation, and interaction. The study concludes that the Pedagogy of Connection offers meaningful paths for integrating technologies in a critical and humanizing way, strengthening autonomy, attentive listening, and digital equity, while also pointing to implications for teacher education and public policy in Early Childhood Education.

Keywords: Sociology of Childhood. Pedagogy of Connection. Digital Technologies.

[1] Doctoral candidate in Education at the Postgraduate Program in Education at theUniversidade Regional Integrada do alto Uruguai e das Missões – FW, CAPES scholarship recipient (level I). Municipal teacher, Ronda Alta-RS: E-mail: a100683@uri.edu.br
[2] Doctor of Education and Professor in the Postgraduate Program in Education at the Educação na Universidade Regional Integrada do Alto Uruguai e das Missões: E-mail: beticerutti@uri.edu.br

Resumo

Este artigo discute os desafios da Educação Infantil diante de uma sociedade conectada e marcada pelas Tecnologias Digitais de Informação e Comunicação (TDIC), que têm transformado as formas de conviver, produzir conhecimento e aprender. O problema que orienta a pesquisa consiste em compreender como as rotinas pedagógicas podem integrar o uso das TDIC de maneira ética, sensível e alinhada ao desenvolvimento de crianças de 4 e 5 anos, já imersas na cultura digital desde cedo. O objetivo é analisar o papel das rotinas no cotidiano escolar e investigar como a Pedagogia da Conexão pode contribuir para práticas que articulem tecnologia, ludicidade e direitos da infância, sob a perspectiva da Sociologia da Infância. Metodologicamente, trata-se de uma pesquisa teórica, qualitativa e exploratória, baseada em revisão analítica de literatura em bases indexadas, com seleção a partir de palavras-chave como Tecnologias Digitais, Rotinas, Educação Infantil e Infância. O estudo fundamenta-se em autores como Sarmento (1997), Barbosa (2006), Kenski (2012) e Lévy (1999), que concebem a criança como sujeito social ativo e produtor de cultura. Os resultados indicam que o uso das TDIC não deve substituir o brincar, mas potencializá-lo por meio da expressão corporal, da investigação e da interação. Conclui-se que a Pedagogia da Conexão oferece caminhos para integrar tecnologias de forma crítica e humanizadora, fortalecendo a autonomia, a escuta e a equidade digital, além de apontar implicações para a formação docente e para políticas públicas de Educação Infantil.

Palavras-chave: Sociologia da Infância. Pedagogia da Conexão. Tecnologias Digitais.

Resumen

Este artículo analiza los desafíos de la Educación Infantil en una sociedad conectada y marcada por las Tecnologías Digitales de Información y Comunicación (TDIC), que han transformado las formas de convivir, producir conocimiento y aprender. El problema que orienta la investigación consiste en comprender cómo las rutinas pedagógicas pueden integrar el uso de las TDIC de manera ética, sensible y alineada al desarrollo de niñas y niños de 4 y 5 años, ya inmersos en la cultura digital desde edades tempranas. El objetivo es analizar el papel de las rutinas en el contexto escolar e investigar cómo la Pedagogía de la Conexión puede contribuir a prácticas que articulen tecnología, ludicidad y derechos de la infancia, desde la perspectiva de la Sociología de la Infancia. Metodológicamente, se trata de una investigación teórica, cualitativa y exploratoria, basada en una revisión analítica de la literatura en bases indexadas, con selección a partir de palabras clave como Tecnologías Digitales, Rutinas, Educación Infantil e Infancia. El estudio se fundamenta en autores como Sarmento (1997), Barbosa (2006), Kenski (2012) y Lévy (1999), quienes conciben al niño como un sujeto social activo y productor de cultura. Los resultados indican que el uso de las TDIC no debe sustituir el juego, sino potenciarlo mediante la expresión corporal, la investigación y la interacción. Se concluye que la Pedagogía de la Conexión ofrece caminos para integrar tecnologías de forma crítica y humanizadora, fortaleciendo la autonomía, la escucha y la equidad digital, además de señalar implicaciones para la formación docente y las políticas públicas en Educación Infantil.

Palabras clave: Sociología de la Infancia. Pedagogía de la Conexión. Tecnologías Digitales.

Introduction

Early Childhood Education has become a dynamic field, constantly challenged by social, cultural, and technological transformations. In recent years, the presence

ALMEIDA, Vanusa Eucléia Geraldo de; CERUTTI, Elisabete.

of Digital Information and Communication Technologies (DICT) in the daily lives of young children has imposed new ways of seeing, living, and interacting with the world. Introduced early to digital culture, 4- and 5-year-olds grow up immersed in touchscreens, interactive videos, and digital games, which profoundly influence their ways of learning and relating, comprising both positive aspects of development and facets that raise concerns regarding their identity and safety.

In this context, educators have faced the challenge of rethinking pedagogical routines not as rigid structures, but as fluid spaces for listening, interacting, and constructing meaning. Routines organize time and space, but more than that, they guide children's experiences and, when well mediated, can contribute significantly to the child's integral development.

This article, which is theoretical and analytical in nature, seeks to reflect on how Digital Information and Communication Technologies (DICT) can be integrated into Early Childhood Education routines, focusing on children aged 4 and 5. It aligns with the principles of the Pedagogy of Connection, based on the fundamentals of the Sociology of Childhood and studies on educational routines. The choice of the 4- and 5-year-old age group is justified because this is the period when children begin to consolidate more complex cognitive, symbolic, communicative, and social skills, while simultaneously deepening their contact with digital devices both inside and outside school. Moreover, it is in this age group that routines begin to have greater pedagogical intentionality, mediating processes of autonomy, interaction, and meaning construction. This aspect makes pedagogical work more challenging, especially regarding the ethical and sensitive mediation of the use of DICT.

Based on the triangulation of concepts, the intention is to contribute to teacher education and the production of pedagogical knowledge that favors environments more connected to the social and cultural reality of children, without neglecting their rights to play, movement, expression, and active participation in their learning processes.

Barbosa (2006) reminds us that routine can be a powerful pedagogical category when used critically and sensitively to children's needs. It structures, but also communicates, educates, and affects. In addition, the Pedagogy of Connection,

as a theoretical and practical proposal (Almeida & Cerutti, 2024), presents ways to integrate digital culture in an ethical, affective, and conscious way into the daily life of Early Childhood Education. It is not a question of replacing play or physicality, but of adding possibilities that respect the language of childhood in its essence.

In this sense, the present study defines the research problem as understanding how Early Childhood Education routines can integrate digital technologies without breaking with learning rights and the principles of play, physicality, and interaction, especially from the perspective of the Sociology of Childhood. Furthermore, there is a gap in the academic debate on how these routines can be reorganized in light of digital culture, without losing sight of listening, bonding, and the power of childhood.

This analytical review involves examining content (texts, research, scientific articles, and books) in which basic concepts are used to critically analyze the subject matter. It involves interpretation, comparison, and reflection based on theoretical and methodological criteria. We understand that the selected authors are references in the field, and we have chosen both classic and contemporary works that support the proposed discussion.

2. Contemporary Childhood and Digital Culture: A New Ecology for Learning

To understand the integration of digital technologies into Early Childhood Education routines, it is necessary, first of all, to discuss how children and childhood are understood in the contemporary context. The Sociology of Childhood, as proposed by Sarmento and Pinto (1997), invites us to think of childhood not as a phase of preparation for adulthood, but as a stage of existence with its own value, marked by cultural, social, and historical specificities. Children are recognized as subjects of rights, producers of culture, and active participants in society.

From this perspective, childhood is not seen as a time of need, but as a time of potential, in which lived experiences have their own meaning. Valuing childhood requires adults, especially teachers, to listen carefully and understand that children construct knowledge and produce meaning from their experiences in the world.

In this context, the National Common Core Curriculum (BNCC) reaffirms the concept of children as historical, cultural, social, and rights-bearing subjects who produce meaning about the world through their interactions, play, and everyday experiences. The document highlights that "children, from a very young age, have their own ways of acting, feeling, and thinking, constructing meanings about themselves, others, and the world" (BRAZIL, 2017, p. 36). By recognizing childhood as a time of potential rather than preparation, the BNCC guides Early Childhood Education to ensure experiences that promote participation, listening, expression, and exploration, valuing multiple languages and respecting children's times and rhythms. This view aligns directly with the Sociology of Childhood and supports the need for pedagogical practices that integrate DICT into school routines without replacing play, but rather expanding the cultural and expressive repertoire of 4- and 5-year-olds, who already inhabit a connected world.

When considering children as subjects of rights and culture, it is essential to rethink the discourses that associate the use of digital technologies in childhood with a generalized threat. Habowski, Ratto, and Henning (2025) criticize moralizing narratives that idealize a pure childhood devoid of technological mediation, stating that "the figure of the 'good player' child operates as an instrument of resistance to digital devices, representing an ideal of childhood alien to technology" (p. 15). Such symbolic construction disregards the contemporary reality in which children are immersed in everyday socio-technical practices, being shaped by multiple digitally mediated languages and experiences.

In this sense, understanding the integration of digital technologies in Early Childhood Education requires overcoming dichotomous views between play and technology. The authors argue that "children are not on the margins of digital culture, but are part of it," recognizing that children's uses of technology can be permeated by creativity, agency, and meaning. Thus, the challenge is not to exclude technology from children's daily lives, but to enhance the ways in which it is incorporated into educational practices, respecting children's expressive and investigative potential.

Added to this perspective is the understanding of digital culture as one of the

main elements that permeate children's daily lives. Currently, access to smartphones and the increasingly widespread use of Artificial Intelligence pose an even greater challenge. From an early age, children have access to mobile devices, games, videos, social networks, and other digital media, which generates a new ecology of childhood, mediated by DICT. The presence of technologies in children's lives is not neutral, nor does it replace human interactions or play, but it does constitute a new symbolic and communicative territory that needs to be considered by pedagogical practices.

OnLife Education, as expressed by Schlemmer (2020), articulates the real and the virtual in a hybrid and connected ecology, in which digital technologies are not prohibited or seen only as tools, but integrated into the daily lives of individuals. From this perspective, technologies are recognized as an active part of the human experience, expanding cognitive, sensory, and affective possibilities. Instead of prohibiting, it proposes to understand and inhabit digital ecosystems as part of the lived world, in which learning and teaching are constructed in connection with the various elements that make up contemporary culture. Thus, OnLife Education does not separate the digital from life, but integrates them in an ethical, critical, and sensitive way, respecting the complexity of being a child in today's world.

This concept of OnLife Education presented by Schlemmer (2020) invites us to change our perspective on the presence of technologies in childhood. Instead of adopting prohibitive attitudes based on fear or attempts at absolute control, the proposal is to recognize that we live in a connected reality, where the digital world is part of the fabric of everyday life. A blanket prohibition is not consistent with this contemporary condition. On the contrary, it is necessary to critically embrace technologies, understanding their impacts, possibilities, and limitations, so that schools can mediate meaningful experiences that respect children's right to live, explore, and learn in the world they inhabit.

Still within this perspective, Moreira and Schlemmer (2020) state that:

> It is within the framework of these needs at the OnLI-FE Teaching level that we can contribute by creating training and capacity-building programs for all educational agents aimed at developing digital training and education projects that are not

limited to the concept of online, but that open paths to on-life digital education (Moreira and Schlemmer, 2020, p.28).

This observation reinforces and highlights the urgency of rethinking teacher education processes in light of the OnLife paradigm, which proposes overcoming the dichotomy between online and offline, recognizing that we live in a hybrid reality in which digital technology is deeply embedded in everyday experiences. By advocating for the creation of educational programs that are not limited to the logic of remote or merely virtual teaching, the authors draw attention to the need for more integrated, sensitive, and contextualized educational practices that engage with the real digital experiences of individuals.

According to Buckingham (2010), it is necessary to promote media education from the early school years, understanding that children are not only passive recipients of digital content, but also interpreters and producers of meaning. This view requires teachers to be attentive to digital languages, children's cultural practices, and the possibilities that these media offer for children's learning and expression.

In addition, it is necessary to consider that the way children interact with digital devices is not homogeneous. Experiences are mediated by factors such as family background, social class, gender, and cultural repertoire. Some children have access to multiple devices and observe the use of technologies by the adults in their lives; others, however, experience this contact in a more restricted or fragmented way. This inequality shows that access to technologies is not a right guaranteed equally, reflecting broader social disparities that affect childhood. Some children depend exclusively on resources provided by schools or public policies, which reveals the urgency of thinking about digital inclusion not only as access to equipment, but as a condition for cultural and social participation. This diversity challenges educators to plan pedagogical interventions that consider inequalities in access and promote digital equity in childhood.

In contemporary times, understanding pedagogical practices involving digital technologies in Early Childhood Education also requires a critical analysis of the disciplinary devices that structure everyday school life. As Habowski, Ratto, and

Henning (2025) point out:

> Disciplinary devices, when placed in a mutual relationship, create hierarchies between the good and the bad. This operational structure implies associating each action, performance, or behavior with a specific set, acting as a field of comparison and establishing differences, in addition to instituting rules that must be followed. In other words: it distinguishes individuals from one another; it measures and classifies individuals; it puts coercion into operation, establishing a consonance to be achieved; it draws the boundaries that define the external frontier of abnormality. (Habowski, Ratto, and Henning, 2025, p.13).

This structure not only measures and regulates behavior, but also defines boundaries between what is considered normal or abnormal. In a learning environment that values digital culture and the power of childhood, it is essential to break with these normative hierarchies and foster freer, more creative, and more pluralistic experiences, in which the use of technology does not serve standardization, but rather expression, listening, and the expansion of possibilities for being and learning.

Lévy (1999) understands digital culture as a new regime of production, circulation, and appropriation of knowledge, characterized by interactivity, virtualization, and collective intelligence. For the author, this culture is not reduced to the use of technologies, but represents a profound change in ways of thinking, learning, and communicating. He defines cyberculture as "the set of techniques (material and intellectual), practices, attitudes, ways of thinking, and values that develop alongside the growth of cyberspace" (Lévy, 1999, p. 17). In digital culture, individuals are no longer just passive recipients of information but become active producers of knowledge, collaborating in virtual networks and communities. It is a scenario in which knowledge is constructed collectively, in a continuous flow, and which reconfigures social, cultural, and educational practices. Thus, digital culture expands the possibilities for expression and learning, requiring schools to reassess contemporary educational processes.

The author's understanding of digital culture provokes a profound reflection on the role of schools and educators today. By recognizing that knowledge is constructed in a network, collaboratively and in constant motion, the traditional logic of vertical transmission of content is disrupted. This means that individuals learn not

ALMEIDA, Vanusa Eucléia Geraldo de; CERUTTI, Elisabete.

only from experts, but also from peers, in digital communities, using multiple languages and media. Given this scenario, it is inappropriate for schools to ignore or marginalize digital culture. On the contrary, it is essential that pedagogical practices be aligned with this reality, embracing technologies in a critical and creative way, encouraging the active participation of children in the construction of knowledge, and recognizing digital environments as legitimate spaces for learning, expression, and interaction.

This understanding of digital culture aligns directly with the reflections of Lemos and Lévy (2010), who argue that cyberculture is intrinsically linked to projections of the future and the democratic possibilities opened up by digital networks. The authors remind us that "thinking about the future requires boldness and an unbiased view. This seems to be the chosen path..." (Lévy & Lemos, 2010, p. 10), pointing to the need to imagine more participatory, collaborative, and ethical ways of inhabiting the digital space. However, they also emphasize that this future is not guaranteed, since technological advances coexist with processes of platformization, algorithmic control, and inequalities of access that can limit the emancipatory potential of the internet. In this sense, schools, especially in Early Childhood Education, cannot limit themselves to the instrumental use of technologies, but must take a critical and formative stance, empowering children and educators to exercise autonomy, participation, and collective intelligence in a digital culture that is still in dispute.

Another important aspect refers to the role of visual language and image culture in the construction of meaning by children. As Rojo (2012) analyzes, digital and multimodal texts operate with their own grammar, full of simultaneous stimuli, sounds, moving images, and hypermedia. Interpreting this universe requires expanded literacy, which goes beyond traditional literacy and recognizes the multiple forms of contemporary communication. In this sense, integrating DICT into Early Childhood Education routines requires preparing teachers capable of mediating these languages with pedagogical intentionality and cultural sensitivity. This topic will be addressed subsequently.

To summarize this discussion, it is possible to say that integrating digital

technologies into Early Childhood Education does not simply mean inserting devices into everyday school life, but recognizing that we live in a new learning ecology, in which knowledge is constructed in the relationship between subjects, languages, cultures, and devices. This ecology for learning requires schools to listen sensitively to contemporary childhood, to understand children's multiple modes of expression, and to value their experiences with the world, both analog and digital.

In Goto's (2023) study, the concept of technology is understood in a broader sense, as a social and cultural phenomenon that has accompanied humanity throughout history and is constantly changing. For the author, digital technologies in education cannot be reduced to the status of tools or auxiliary resources, as they are intertwined with power relations, symbolic disputes, and pedagogical intentions. This understanding aligns with Moran (2000), who argues that technology only produces educational change when articulated with practices of mediation, interaction, and student protagonism. Goto (2023) also aligns his thinking with the reflections of Morsch (2016) when he states that the adoption of digital technologies requires shifts in the roles of teachers and schools, which cease to be spaces focused on the transmission of content and become environments for creation, collaboration, and investigation. Thus, by placing Goto (2023), Moran (2000), and Morsch (2016) in dialogue, conceptions emerge that reinforce the need for critical, contextualized, and formative use of digital technologies, contributing to the school's role in building an ethical, inclusive, and emancipatory digital culture.

From this perspective, the insertion of technologies does not occur as a fad or external imposition, but as part of an ethical, aesthetic, and political pedagogical project that recognizes children as powerful subjects, producers of culture, and capable of learning in connection with the various elements that constitute their reality. Thus, building educational practices in the context of digital culture implies inhabiting this new territory with critical awareness, mediating meanings and promoting experiences that respect children's right to learn with, about, and through the technologies that permeate their lives.

3. Routines as pedagogical spaces of intentionality

When we reflect on digital culture the environment in which children are immersed and consider children's daily lives and routines as representing much more than a mere sequence of activities organized throughout the day, we are led to the Sociology of Childhood. These elements constitute the paths of this analytical tripod. Routines are fundamental pedagogical devices that guide the organization of time, space, and interactions in everyday school life. According to Barbosa (2006), routine is a structuring element of educational work, capable of giving rhythm, security, and meaning to children's experiences.

The author argues that, when planned with intention and sensitivity, routines favor the development of autonomy, self-regulation, and predictability, which are essential aspects for children's well-being. However, strictly speaking, these routines must not become rigid and immutable structures; they must be open to listening to children, their needs, desires, and their own ways of being in the world.

In this sense, routines should connect with children's daily lives, integrating elements of family and community life, local culture, and contemporary practices, including the media and technologies with which children interact outside of school. The shared construction of routine with the participation of children, whenever possible helps them understand time and develop notions of sequence, expectation, and belonging. Furthermore, regarding technology, it is not just a matter of prohibiting use, but of providing guidance so that parents understand the pedagogical strategies behind the digital technologies that the school uses for educational purposes.

In this context, Lefebvre (1984) distinguishes routine from daily life, highlighting that routine can, in some instances, become meaningless when it turns automated. Daily life, even if repetitive, is the locus for experience, reinvention, and encounters with the unexpected. Incorporating this view into the organization of school time implies understanding that daily activities such as snack time, hygiene, circle time, and rest are rich opportunities for learning, expression, and emotional bonding. This position is clear in the author's words:

> In contrast to routine, daily life is much more comprehensive and refers to a space-time that is fundamental to human life, because it is where repetitive, routine, and trivial activities take place, but it is also the focus where there is the possibility of encountering the unexpected, where there is room for innovation, where one can achieve the extraordinary from the ordinary (Lefebvre, 1984, p. 51).

Barbosa (2006) also points out that routines involve both biological and sociocultural aspects. Mealtimes, hygiene, and rest are human needs, but they are also influenced by cultural norms, social habits, and emotional meanings. Therefore, treating them as educational opportunities requires educators to be attentive and respectful, capable of transforming the ordinary into the extraordinary.

From this perspective, every moment of the routine becomes meaningful: welcoming children at the entrance, free play, guided activities, listening to stories, outdoor play, and departure. All of this constitutes the living curriculum of Early Childhood Education, permeated by relationships, discoveries, and learning that emerge from the interaction between children, adults, the environment, and culture. An example of this can be seen when, during story time, the teacher uses a projector or tablet to enhance the visual aspect of the plot, displaying images, sounds, or animations that support the narrative, while the children comment, ask questions, and relate the story to their personal experiences. In this scenario, technology does not replace the bond or the act of storytelling, but enhances the sensitive, collective, and investigative experience, making the routine a space for dialogue between languages, times, and cultures that coexist in contemporary childhood.

By understanding routine as a fabric of powerful experiences, we can also recognize that digital technologies, when integrated with pedagogical intentionality, can enhance these everyday experiences. The conversation circle can also be enriched by new languages when the teacher uses digital resources to revisit experiences, read messages sent by families, display photos brought in by children, or access maps, music, and videos that contextualize the topic under discussion. In this dynamic, the routine becomes a space for cultural reconstruction, in which technology acts as a bridge between the particular experience and the collective world. Thus, technology becomes an ally in expanding the senses, promoting

collective listening, and valuing children's multiple languages, without replacing human interaction, but rather adding to the sensitive encounter between subjects and the enchantment that routine can provide.

4. Digital technologies in children's routines from the teacher's perspective

The introduction of Digital Information and Communication Technologies (DICT) in Early Childhood Education brings with it a series of challenges, but also countless possibilities. First, it is essential to understand that the use of technology should not be guided by fads or pressures external to the educational context. On the contrary, its presence in routines must be linked to a clear educational purpose that respects the specificities of childhood and promotes meaningful learning.

Among the challenges identified, teacher education stands out. Many professionals still feel insecure about the pedagogical use of technologies, which can lead to their absence or, conversely, to excessive and decontextualized use. According to Almeida and Cerutti (2024), it is necessary to invest in formative processes that develop critical and creative skills so that educators can plan activities mediated by DICT in an ethical, affective, and respectful manner towards childhood. An example of this is professional development that enables teachers to use audio production applications, such as simple recorders, to record narratives, songs, and stories told by the children themselves, allowing these productions to be part of everyday teaching. This practice not only values listening and children's agency, but also offers educators a concrete experience of integration between technology, language, and affectivity, making the use of DICT more meaningful and consistent with the reality of Early Childhood Education.

To substantiate this view, we have the statement by Kenski (2012), "The mere insertion of these new technologies in the classroom is not enough, as it is not a simple change of medium, but a tool that, when integrated into teaching practices, can become a great ally of learning" (Kenski, 2012, p. 20).

In this context, another sensitive issue concerns the infrastructure of Early Childhood Education institutions. In many cases, there are still limitations in terms of

access to equipment, internet connection, and adequate spaces for the integration of technologies. This highlights the importance of public policies that guarantee digital equity from the early school years, enabling all children to have access to quality digital experiences mediated by qualified adults.

On the other hand, the possibilities are vast and powerful. Technologies can be used as tools to expand children's language, imagination, and creativity. As Rojo (2012) points out, contemporary pedagogical practices need to consider the multiple literacies and languages that make up digital and multimodal texts, favoring learning that is more connected to the cultural reality of children. Resources such as projectors, cameras, tablets, and audio recorders can be integrated into routines in an investigative and playful way, contributing to the documentation of experiences, sensitive listening to children's voices, and the production of visual and audio narratives by the children themselves.

The organization of a routine schedule for 4- and 5-year-olds should consider the balance between arrival times, investigative proposals, free play, care routines, and mediated interactions. An example of a meaningful routine can begin with an affectionate welcome, followed by a conversation circle in which children share experiences and construct meaning collectively. This can be followed by guided activities that combine different languages, such as visual arts, music, nature exploration, or experiences with digital technologies, while respecting children's agency. Free play, both inside and outside the classroom, is an essential part of this routine, allowing children to create, negotiate rules, express affection, and explore their environment independently. Care routines, such as mealtimes and hygiene, also take on an educational character, as they strengthen bonds, promote autonomy, and expand cultural repertoires. Finally, closing the day, whether through a story, a farewell circle, or a review of experiences, ensures that children are recognized in their processes and that the routine constitutes a space of meaning, safety, and learning.

The routine of 4- and 5-year-olds can integrate Digital Information and Communication Technologies (DICT) in an ethical, playful, and intentional way, without breaking with the essence of play and coexistence. After welcoming the children, a moment of projecting images or short videos made by the children

themselves can foster collective memory and a sense of belonging. In conversation circles, simple digital resources, such as audio recorders or tablets, can be used for children to listen to their own voices, sing, tell stories, or bring in recordings of their lives outside of school, expanding their listening and authorship. During investigative activities, the use of tablets to photograph experiments, enlarge images, or explore drawing and sound applications allows technology to become a tool for creation and research. Free play can include the exploration of light projectors, recorded sounds, augmented reality resources, or digital cameras, always integrated with movement, imagination, and the body. At the end of the day, digital pedagogical documentation, such as a multimedia diary or a virtual image wall, can be displayed so that children can revisit their experiences and construct meaning about what they have lived. Thus, technology is integrated into the routine as a cultural language of contemporary childhood, without replacing bonds, embodied experiences, or time, but rather expanding expressive and investigative possibilities.

This reinforces the concept of routine by Barbosa (2006):

> Routine is a pedagogical category that those responsible for early childhood education structure in order to develop daily work in early childhood education institutions. The names given to routine are diverse: schedule, use of time, sequence of actions, work of adults and children, daily plan, daily routine, day, etc. (Barbosa, 2006, p. 35).

This concept reinforces the idea that routine in Early Childhood Education should be understood as an intentional pedagogical category, constructed to organize and give meaning to the daily life of institutions. The different names given to routine, such as schedule, day, or daily plan, reveal its complexity and centrality in pedagogical practice. In proposing this broader view, Barbosa (2006) emphasizes that routine should not be thought of as mechanical repetition, but as an opportunity for meaningful, welcoming experiences that promote learning, respecting the pace and interests of children in their plurality.

When well-integrated into everyday education, DICT enhances multiliteracy practices, allowing children to explore and move between different verbal, visual,

auditory, and digital languages in meaningful experiences. In this sense, Rojo (2012) highlights the importance of incorporating multiple modes of expression into contemporary pedagogical practices. Listening to children's podcasts, producing videos about the class's experiences, and using drawing and sound composition applications, among other strategies, favor children's agency and expand their communication skills.

Thus, the presence of technology does not replace human interactions, free play, contact with nature, or the emotional bonds built in everyday school life. It should be seen as another language available in children's repertoire, capable of interacting with other sensory, bodily, and symbolic experiences. The Pedagogy of Connection, proposed by Almeida and Cerutti (2024), points to ways for this ethical articulation between technology, corporeality, and playfulness, recognizing that digital technology can be integrated into routine without sacrificing listening to children and valuing their times, rhythms, and expressions.

The Pedagogy of Connection emerges as a proposal that articulates the use of digital technologies with the sensitive and meaningful experiences of childhood, recognizing children as active agents in their learning process. Based on ethical, affective, and aesthetic principles, this approach proposes a new perspective on everyday school life, in which pedagogical mediation values both play and multiple contemporary languages, including the digital.

According to Almeida and Cerutti (2024), the Pedagogy of Connection is based on the understanding that technology should not be treated as an end in itself, but as a means of enhancing human relationships, creative expression, and integral development. This implies overcoming technical or instrumental approaches to the use of DICT and investing in practices that bring together listening to children, playfulness, physicality, and digital culture.

This pedagogical proposal understands the teacher as a sensitive and intentional mediator who organizes the educational environment as a space for investigation, enchantment, and discovery. The presence of technologies is considered a language among others, which integrates into learning contexts without overshadowing the affective, symbolic, and intersubjective dimensions of the child's experience. This concept is supported by the ideas of Valente (2003), who points to

the teacher as a mediator and organizer of the learning environment with technologies, and Lévy (1999), who advocates for an educator capable of guiding collaborative processes in the digital age.

In the Pedagogy of Connection, pedagogical documentation takes center stage, as it allows the experiences, thought processes, and narratives constructed by children to become visible. The use of digital records such as photos, videos, audio recordings, and visual productions is not evaluative in nature, but rather expressive and communicative. It is a resource for teachers to value listening and share with families and the educational community the multiple ways of being and learning in childhood. This concept can be seen in the guiding document presented at the end of the work by Almeida and Cerutti (2024), which provides examples of listening, documentation, and mediation practices based on ethics, sensitivity, and the appreciation of childhood.

In addition, this approach values childhood time, understanding that learning is not about accelerating development, but offering rich contexts for interaction, exploration, and connection. In this sense, the organization of routines should be flexible, welcoming, and responsive to the needs of the group, promoting moments of concentration, movement, silence, and creation in balance with digital stimuli. As Barbosa (2006) argues, respecting children's time means recognizing the importance of routines as a space for experience, where daily life is permeated by relationships, discoveries, and meanings that cannot be anticipated or standardized.

However, while routine can be a space for listening to and valuing childhood, it can also become a device of control, especially when marked by rigid norms and institutional practices that are insensitive to children's time and subjectivity. As Habowski, Ratto, and Henning (2025, p. 10) warn:

> In the institutionalized routine of regulating time and activities, teachers also become targets of the exercise of power, occupying a strategic position in the dissemination of disciplinary devices through norms, rhythms, codes, and rituals. Standardization primarily affects teachers, who are simultaneously challenged by normative discourse and tasked with implementing institutional guidelines.

5. Final Considerations

The objective of this theoretical investigation was to discuss how Early Childhood Education routines can integrate Digital Information and Communication Technologies (DICT) in an ethical, sensitive manner that is aligned with the principles of the Pedagogy of Connection. Returning to the central question of the study, we reaffirm that we live in a social and cultural scenario marked by the intense presence of digital technologies, which requires schools to review their practices and their understanding of childhood. In light of the Sociology of Childhood, it was reaffirmed that 4- and 5-year-old children are social subjects, producers of culture, and active participants in contemporary life, which implies recognizing their interactions with digital devices as a constitutive part of their ways of being and learning.

The theoretical results show that routines, when organized with pedagogical intent and sensitivity, become powerful spaces for listening, coexistence, investigation, and expression. In this context, the integration of DICT does not replace play, embodied experiences, or the relational dimension, but can expand them, diversifying languages, strengthening bonds, and enabling experiences more connected to the reality experienced by children. Thus, the initial hypothesis that digital technologies can be incorporated into routines in a meaningful way is confirmed, provided they are mediated by qualified teachers and pedagogical projects that respect childhood.

At the same time, the study showed that this integration requires addressing challenges related to teacher education, infrastructure, and, especially, digital equity. This aspect proved to be central, as access to technologies is not distributed equally among children. Factors such as income, geographical location, family educational background, and public policies determine who can or cannot fully participate in digital culture. Therefore, discussing DICT in Early Childhood Education also implies defending the right of all children to access, authorship, and cultural participation mediated by technologies, so that digital inclusion becomes digital equity.

It was also pointed out that the Pedagogy of Connection offers consistent ways to think about this integration, as it articulates the use of technologies with

playfulness, corporeality, interaction, and ethics. It is a formative paradigm that reinforces the role of the teacher as an intentional mediator, capable of organizing environments that welcome children in their plurality of languages, including digital ones.

As a theoretical study, it is recognized that this research has limitations in terms of practical observation of real contexts. Thus, it is recommended that future research investigate concrete pedagogical practices guided by the Pedagogy of Connection, analyzing how routines with DICT are configured in different institutions, social contexts, and infrastructure conditions. It is also suggested that new research explore the relationship between technology, digital equity, children's agency, and pedagogical documentation.

It is concluded that integrating digital technologies into Early Childhood Education routines does not mean adhering to technological trends, but rather recognizing children as subjects of rights and culture, whose experience in the world is also digital. The school's ethical commitment is to ensure that these experiences are humanized, critical, sensitive, and equitable. Educating in digital culture is not about prohibiting or subjugating, but rather mediating, listening, and creating meaningful connections, placing childhood at the center of the process.

Referências

ALMEIDA, Vanusa Eucléia Geraldo de; CERUTTI, Elisabete. **O uso da tecnologia na infância:** o que professores e pais precisam saber sobre a Pedagogia da Conexão. Goiânia: Editora Visão, 2024.

BARBOSA, Maria Carmen Silveira. **Por amor e por força:** rotinas na educação infantil. Porto Alegre: Artmed, 2006.

BELLONI, Maria Luiza. **O que é mídia-educação.** 3. ed. Campinas, SP: Autores Associados, 2009. (Coleção Polêmicas do Nosso Tempo, v. 78).

BRASIL. Ministério da Educação. **Base Nacional Comum Curricular**. Brasília: MEC, 2017.

BUCKINGHAM, David. Cultura Digital, Educação Midiática e o Lugar da Escolarização. **Educação & Realidade**, [S. l.], v. 35, n. 3, 2010. Disponível em:

https://seer.ufrgs.br/index.php/educacaoerealidade/article/view/13077. Acesso em: 4 dez. 2025.

GOTO, Maura Akemi. **Conceito de tecnologia e o uso das tecnologias digitais no ensino:** uma reflexão a partir das pedagogias críticas. 2023. Trabalho de Conclusão de Curso (Licenciatura em Pedagogia) – Instituto Federal do Paraná, Curitiba, 2023.

HABOWSKI, Adilson Cristiano; RATTO, Cleber Gibbon; HENNING, Paula Correia. Salvemos as crianças! As tecnologias digitais redimidas pelo "bom brincante". **Educação & Sociedade,** Campinas, v. 46, e291552, 2025. Disponível em:https://www.scielo.br/j/es/a/gqJfr6gm74qWwJx9mTnLnJx/?lang=pt. Acesso em: 04 dez. 2025.

KENSKI, Vani Moreira. **Educação e tecnologias:** o novo ritmo da informação.6. ed. Campinas, SP: Papirus, 2012.

LEFEBVRE, Henry. **La vida cotidiana en el mundo moderno.** Madrid: Alianza Editorial, 1984.

LEMOS, André; LÉVY, Pierre. **O futuro da internet:** em direção a uma ciberdemocracia planetária. São Paulo: Paulus, 2010.

LÉVY, Pierre. **Cibercultura.** São Paulo: Editora 34, 1999.

MORAN, José Manuel. **A educação que desejamos:** novos desafios e como chegar lá. Campinas: Papirus, 2000.

MORSCH, Mário. **Tecnologias digitais e a escola**: fundamentos e práticas. Porto Alegre: Penso, 2016.

ROJO, Roxane. Multiletramentos na escola: práticas de letramento e produção de identidades. *In*: ROJO, Roxane (org.). **Letramentos múltiplos, escola e inclusão social.** São Paulo: Parábola Editorial, 2012. p. 11–33.

SARMENTO, Manuel Jacinto; PINTO, Manuel. As crianças e a infância: definindo conceitos, delimitando o campo. *In*: PINTO, Manuel; SARMENTO, Manuel Jacinto (orgs.). **As crianças: contextos e identidades.** Braga: Centro de Estudos da Criança, Universidade do Minho, 1997. p. 7–29.

SCHLEMMER, Eliane; MOREIRA, José António Marques. Ampliando Conceitos para o Paradigma de Educação Digital OnLIFE. **Revista Interacções**, [S. l.], v. 16, n. 55, p. 103–122, 2020. DOI: 10.25755/int.21039. Disponível em: https://revistas.rcaap.pt/interaccoes/article/view/21039. Acesso em: 5 dez. 2025.

Approved on: 11-11-2025