



**THE IMPORTANCE OF VALUES IN EARLY CHILDHOOD AND THEIR  
IMPACTS ON FUTURE BEHAVIOR FROM A  
NEUROPSYCHOPEDAGOGICAL PERSPECTIVE: A COMPARATIVE STUDY  
BETWEEN BRAZIL AND JAPAN WITH EMPHASIS ON THE FAMILY  
CONTEXT**

**A IMPORTÂNCIA DOS VALORES NA PRIMEIRA INFÂNCIA E SEUS  
IMPACTOS NO COMPORTAMENTO FUTURO SOB A PERSPECTIVA  
NEUROPSICOPEDAGÓGICA: UM ESTUDO COMPARATIVO ENTRE  
BRASIL E JAPÃO COM ÊNFASE NA BASE FAMILIAR**

**LA IMPORTANCIA DE LOS VALORES EN LA PRIMERA INFANCIA Y SUS  
IMPACTOS EN EL COMPORTAMIENTO FUTURO DESDE LA  
PERSPECTIVA NEUROPSICOPEDAGÓGICA: UN ESTUDIO COMPARATIVO  
ENTRE BRASIL Y JAPÓN CON ÉNFAIS EN LA BASE FAMILIAR**

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**ABSTRACT**

The formation of values in early childhood represents a structuring element of human development, exerting long-term effects on future behavior, social adaptation, and mental health. From a neuropsychopedagogical perspective, this study aims to analyze the importance of values internalized during the first years of life, emphasizing the role of the family as a mediator of affective, cognitive, and social experiences, through a comparative analysis between Brazil and Japan. This research adopts a qualitative bibliographic review based on national and international scientific literature addressing neural plasticity, developmental windows, early interactions, and family educational practices. The findings indicate that the high neural plasticity characteristic of early childhood enhances the internalization of values such as empathy, cooperation, and self-regulation, particularly when supported by secure affective bonds. The study concludes that, despite cultural differences between Brazil and Japan, both contexts recognize the central role of the family in children's ethical and socio-emotional development, highlighting the importance of integrated and culturally sensitive educational policies and practices.

**Keywords:** Early Childhood. Values. Neuropsychopedagogy. Family. Culture.

**RESUMO**

A formação de valores na primeira infância constitui um elemento estruturante do desenvolvimento humano, exercendo impactos duradouros sobre o comportamento futuro, a adaptação social e a saúde mental. Sob a perspectiva neuropsicopedagógica, este estudo objetiva analisar a importância dos valores internalizados nos primeiros anos de vida, com ênfase no papel da família como mediadora das experiências afetivas, cognitivas e sociais, a partir de uma análise comparativa entre os contextos do Brasil e do Japão. Trata-se de uma revisão bibliográfica de abordagem qualitativa, fundamentada em produções científicas nacionais e internacionais sobre plasticidade neural, janelas de desenvolvimento, interações precoces e práticas educativas familiares. Os resultados indicam que a elevada plasticidade cerebral da primeira infância potencializa a



internalização de valores como empatia, cooperação e autorregulação, especialmente quando mediada por vínculos afetivos seguros. Conclui-se que, apesar das diferenças culturais entre Brasil e Japão, ambos os contextos reconhecem a centralidade da família na formação ética e socioemocional da criança, reforçando a necessidade de políticas e práticas educativas integradas e sensíveis às especificidades socioculturais.

**Palavras-chave:** Primeira Infância. Valores. Neuropsicopedagogia. Família. Cultura.

## RESUMEN

La formación de valores en la primera infancia constituye un elemento estructurante del desarrollo humano, ejerciendo impactos duraderos sobre el comportamiento futuro, la adaptación social y la salud mental. Desde la perspectiva neuropsicopedagógica, este estudio tiene como objetivo analizar la importancia de los valores internalizados en los primeros años de vida, con énfasis en el papel de la familia como mediadora de las experiencias afectivas, cognitivas y sociales, a partir de un análisis comparativo entre los contextos de Brasil y Japón. Se trata de una revisión bibliográfica de enfoque cualitativo, fundamentada en producciones científicas nacionales e internacionales sobre plasticidad neural, ventanas de desarrollo, interacciones tempranas y prácticas educativas familiares. Los resultados indican que la elevada plasticidad cerebral en la primera infancia potencia la internalización de valores como la empatía, la cooperación y la autorregulación, especialmente cuando está mediada por vínculos afectivos seguros. Se concluye que, a pesar de las diferencias culturales entre Brasil y Japón, ambos contextos reconocen la centralidad de la familia en la formación ética y socioemocional del niño, reforzando la necesidad de políticas y prácticas educativas integradas y sensibles a las especificidades socioculturales.

**Palabras clave:** Primera Infancia. Valores. Neuropsicopedagogía. Familia. Cultura.



## 1 INTRODUCTION

Reflection on the formation of values in early childhood occupies a central position in the fields of education, psychology and neuropsychopedagogy, since it directly affects structuring processes of human development. It is a complex phenomenon that articulates biological, affective, cognitive, social and cultural dimensions, going beyond reductionist approaches that understand learning only as the transmission of content. Early childhood is characterized as a sensitive period, marked by high neural plasticity and intense receptivity to the influences of the family environment, in which internalized values act as organizing references for behavior, interpersonal relationships, and the ethical constitution of the subject throughout life (DA SILVA MAIA, 2024).

From the perspective of neuropsychopedagogy, the construction of values in early childhood is intrinsically linked to the neurobiological processes that sustain the development of executive functions, emotional self-regulation and social awareness. Early experiences, especially those mediated by family life, activate and modulate neural circuits associated with empathy, self-control, and decision-making, contributing to the consolidation of relatively stable behavioral patterns throughout the life cycle. In this sense, values assume a structuring role, lastingly influencing the way the individual perceives, interprets, and responds to social demands (SOARES, 2024).

The family emerges, in this context, as an unavoidable theoretical and empirical axis, as it constitutes the first space for socialization, care and normalization of the child. It is in the family environment that primary affective bonds, communicational models and educational practices are established that guide the construction of meanings about oneself, about the other and about the world. Understood in its relational complexity, the family acts as a mediator between the developing subject and the broader sociocultural universe, exerting a direct influence on the child's psychic, emotional, and behavioral organization (RAYES, 2023).

From the historical-cultural point of view, the analysis of the formation of values in childhood demands a comparative approach that considers the different symbolic, educational and social systems in which children are inserted. In the case of Brazil and Japan, significantly different cultural matrices are observed, which have repercussions on family and school practices. While Brazilian culture tends to privilege interpersonal relationships marked by affective expressiveness and greater normative flexibility, Japanese society emphasizes principles such as collectivity, discipline and respect for



hierarchies, elements that are directly reflected in the processes of child socialization (BEPPU; SOUZA, 2022).

These cultural differences do not imply a hierarchy of educational models, but they highlight the need to understand how the values transmitted in early childhood are articulated with specific sociocultural contexts. In Japan, the early internalization of collective norms and self-regulated behaviors is strongly associated with family and community practices, while in Brazil the formation of values occurs in a scenario marked by high socioeconomic and cultural diversity. Such a configuration requires more flexible educational strategies that are sensitive to inequalities, especially in contexts of social vulnerability (COSTA, 2025).

Neuropsychopedagogy offers decisive contributions to this analysis by integrating contributions from neuroscience, developmental psychology and pedagogy, allowing us to understand how values influence learning processes, behavior and social adaptation. Recent investigations indicate that values such as persistence, cooperation, and respect are directly related to the strengthening of higher cognitive functions, with a positive impact on both academic performance and mental health throughout the school trajectory (OLIVEIRA, 2024).

In this sense, the formation of values in early childhood is inseparably linked to the development of socio-emotional skills, currently recognized as fundamental competencies for life in society. Skills such as recognizing emotions, dealing with frustrations, resolving conflicts and establishing empathetic relationships have their foundations built in the first years of life, being deeply influenced by family educational practices and daily interactions. This finding reinforces the importance of an intentional and conscious approach to moral and socio-emotional education in this period (MOREIRA, 2021).

On the other hand, the fragility or absence of consistent values in childhood can have significant repercussions on future development, manifesting itself in learning difficulties, socialization problems, and increased risks of neurodevelopmental disorders. Evidence shows that family contexts marked by affective neglect, emotional instability, or incoherent educational practices tend to compromise the development of self-regulation and moral awareness, increasing psychosocial vulnerabilities in childhood and adolescence (FILÓ, 2024).



The inclusive perspective broadens this debate by recognizing that the formation of values must consider human diversity, including children with neurodevelopmental disorders, high abilities or specific educational needs. In this scenario, the partnership between family and school assumes a strategic role, with a preventive and formative character, by promoting practices based on respect for singularities and valuing individual potentialities, favoring more equitable and socially responsible development trajectories (MIRANDA, 2021).

The neuropsychopedagogical literature also highlights play as a central language of childhood and a powerful mediator in the construction of values. Through playful experiences, the child experiences rules, negotiations, cooperation and limits, internalizing ethical and social principles in a meaningful way. Thus, playing is configured as a structuring device for moral and socio-emotional development, and not as mere entertainment (CARDOSO, 2024).

Finally, the comparative analysis between Brazil and Japan shows that, despite the cultural differences, both contexts recognize the centrality of the family in the integral formation of the child. The distinctions lie in the strategies, expectations, and values prioritized, which reinforces the need for sensitive intercultural approaches, capable of dialoguing with multiple realities without disregarding the universal neuropsychopedagogical foundations of human development (BEPPU; SOUZA, 2022).

## **2 THE FAMILY AS A STRUCTURING AXIS OF THE FORMATION OF VALUES IN EARLY CHILDHOOD: NEUROPSYCHOPEDAGOGICAL AND HISTORICAL-CULTURAL CONTRIBUTIONS**

The constitution of values cannot be reduced to a spontaneous or merely individual process, as it emerges from systematic interactions between neurobiological maturation, symbolic mediations and family educational practices, which modulate, from the earliest years, the neuronal circuits responsible for emotional self-regulation, empathy and the internalization of social norms. The family, in this sense, is configured as the primary instance of organization of the child's experience, functioning as a space for the intergenerational transmission of meanings, affections, and behavioral patterns that structure the child's psychological and social development (DA SILVA MAIA, 2024).

From the neuropsychopedagogical point of view, the internalization of values in early childhood is supported by evidence that demonstrates high brain plasticity in the



first years of life, a period in which affective, linguistic and relational experiences decisively shape neural architecture. Family educational practices, by favoring emotionally safe and cognitively stimulating environments, enhance the consolidation of executive functions, working memory and inhibitory control capacity, elements directly related to the construction of ethical and socially responsible behaviors. The absence or fragility of these mediations can compromise the organization of development, generating lasting impacts on the individual's future behavior and social adaptation (SOARES, 2024).

The historical-cultural perspective contributes to broaden this analysis by showing that values are not only internalized contents, but socially mediated symbolic processes. In the Japanese context, there is an educational tradition strongly oriented by the collectivity, by respect for norms and by valuing the group, elements transmitted consistently in the family environment from early childhood. In contrast, the Brazilian context reveals greater heterogeneity in family practices, marked by socioeconomic inequalities and tensions between traditional and contemporary educational models. This structural difference directly influences the modes of child socialization and the patterns of behavior observed throughout life (BEPPU; SOUZA, 2022).

The family, as an affective and educational nucleus, plays a decisive role in the formation of moral conscience, as it articulates emotional, cognitive and behavioral dimensions. The daily interaction between caregivers and children constitutes a privileged field for the learning of values such as cooperation, respect and responsibility, which are incorporated not by direct instruction, but by observation, imitation and experience. Neuropsychopedagogy recognizes that these early experiences are decisive for the organization of mental schemes that will guide future choices, influencing both academic performance and interpersonal relationships in adult life (RAYES, 2023).

In the context of learning development, the values internalized in early childhood establish a solid basis for the construction of formal knowledge. The literature shows that children inserted in family contexts that promote affective discipline, stimulate autonomy and value effort have a greater capacity for cognitive engagement and resilience in the face of challenges. These aspects are fundamental for the consolidation of school learning and for the development of socio-emotional skills, which are increasingly recognized as central in contemporary educational processes (OLIVEIRA, 2024).

The comparative analysis between Brazil and Japan also shows different conceptions of childhood and parental role, which are reflected in the educational



practices and behavioral results observed. In the Japanese context, the co-responsibility of the family and the community in early childhood education reinforces the early internalization of collective values, while in Brazil the fragmentation of policies to support the family and early childhood makes it difficult to consolidate consistent educational practices. This disparity reveals the need for integrated public policies that recognize the centrality of the family in child development (COSTA, 2025).

From the perspective of neuroeducation, the early identification of difficulties in socio-emotional and behavioral development allows for more effective interventions, capable of minimizing future impacts. The absence of structuring values, such as clear boundaries and secure affective bonds, can contribute to the emergence of learning disabilities, behavioral disorders, and self-regulation problems. Neuropsychopedagogical action, by dialoguing with the family, becomes strategic to promote healthier educational environments that are responsive to the child's needs (HENNEMANN, 2024).

Playfulness, as a privileged language of childhood, is a fundamental mediator in the transmission of values, as it allows the child to experience rules, social roles and emotions in symbolic contexts. Family play practices, when intentionally guided, favor the construction of social and emotional skills, in addition to strengthening affective bonds. In this sense, playing transcends the recreational dimension and assumes a structuring role in moral and behavioral development, being widely recognized by the contemporary educational literature (CARDOSO, 2024).

The formation of socio-emotional skills in early childhood is intrinsically associated with the quality of family interactions and the coherence of the values transmitted. Empathy, emotional self-regulation and the ability to resolve conflicts emerge from consistent relational experiences, in which the child perceives himself to be welcomed and guided. Such competencies exert a direct influence on future behavior, impacting academic, professional, and social trajectories, which reinforces the centrality of the family as a primary educational agent (MOREIRA, 2021).

The inclusive approach broadens this discussion by considering the diversity of family contexts and child development conditions. Children with neurodevelopmental disorders or with high abilities demand educational practices that are sensitive to their specificities, with the family being a key element in mediating between the child's needs and formal educational contexts. The partnership between family and education professionals is an essential therapeutic dimension for the promotion of integral



development and social inclusion (MIRANDA, 2021).

## 2.1 EARLY CHILDHOOD AS A CRITICAL PERIOD OF HUMAN DEVELOPMENT

Early childhood is a critical period of human development because it concentrates neurobiological, psychological, and social processes that structure, in a deep and lasting way, the cognitive, emotional, and behavioral functioning of the individual. It is a stage marked by high brain plasticity, in which early experiences exert a decisive influence on the organization of the neural systems responsible for learning, self-regulation and social interaction. Understanding early childhood as a sensitive phase implies recognizing it not as a merely preparatory stage, but as a structuring foundation for future developmental trajectories, whose effects go beyond the individual level and have repercussions on social and cultural life (ANGELINI, 2023).

From the neuroscientific perspective, the first years of life are characterized by intense synaptogenesis, myelination, and functional specialization of the brain, processes strongly modulated by the quality of environmental experiences. Consistent affective stimuli, qualified linguistic interactions, and emotionally safe contexts favor the consolidation of neural circuits associated with memory, attention, and executive functions. In contrast, environments marked by neglect, emotional instability, or symbolic deprivation tend to compromise these processes, generating persistent impacts throughout the life cycle. Early childhood, therefore, represents simultaneously a period of high vulnerability and extraordinary developmental potential (OLIVEIRA, 2024).

From the neuropsychopedagogical point of view, the criticality of this stage stems from the interdependence between brain maturation and educational experiences. Learning, in this period, involves the construction of basic mental schemes, the organization of emotions and the internalization of behavioral patterns, mediated by daily interactions with significant adults. The quality of these mediations is a determining factor for integral development, reinforcing the need for educational practices intentionally structured from the early years (SOARES, 2024).

The centrality of the family in this process stems from its condition as the first space for socialization and the construction of affective bonds. In early childhood, children rely heavily on caregivers to regulate emotions, interpret the world, and develop feelings of safety and belonging. By transmitting values, norms, and relationship models, the family



acts as an organizing matrix of the child's psyche, decisively influencing the perception of oneself, the other, and the collective (DA SILVA MAIA, 2024).

The socio-emotional dimension is particularly relevant in this period, since skills such as empathy, emotional self-regulation, and social adaptation tend to stabilize early. Evidence indicates that affectively predictable environments favor greater emotional balance, while unstable contexts increase the probability of behavioral and emotional difficulties. Thus, early childhood is a decisive stage for mental health throughout the life cycle (MOREIRA, 2021).

The historical-cultural analysis of childhood shows that different societies attribute different meanings to this stage of development. In the Japanese context, early childhood is understood as a privileged moment for the internalization of collective values and strengthening the sense of social belonging, with the active participation of the family and the community. In Brazil, although there is growing recognition of the importance of this phase, structural inequalities persist that limit access to appropriate educational contexts, deepening disparities in child development (BEPPU; SOUZA, 2022).

Playfulness plays a central role in the organization of child development, functioning as the child's privileged language to understand the world and himself. Through play, the child elaborates emotions, experiments with rules and builds social meanings, exercising cognitive and socio-emotional skills in an integrated way. Thus, playing is not configured as an accessory element, but as a structuring device for human development (CARDOSO, 2024).

The inclusive perspective expands this understanding by highlighting the need to pay attention to the singularities of child development. Children with neurodevelopmental disorders, learning difficulties or high abilities require early and contextualized interventions, under penalty of intensifying difficulties and limiting potentialities. Integrated action between family, school, and specialized professionals is essential to ensure the right to full development from the early years (ROEDER, 2020).

Finally, the neuropsychopedagogical approach reinforces that the criticality of early childhood should be understood as a privileged window of opportunity, and not in a deterministic way. The brain plasticity characteristic of this period allows significant functional reorganizations when there are adequate stimuli, even in contexts of vulnerability. Such a perspective shifts the focus from a deficient vision to an empowering



approach, in which early investment plays a strategic role in promoting human development and social justice (PIZYBLSKI et al., 2020).

## 2.2 NEURAL PLASTICITY, EARLY INTERACTIONS AND PSYCHIC ORGANIZATION: FUNDAMENTALS OF FUTURE BEHAVIOR IN EARLY CHILDHOOD

Early childhood is a decisive period of human development because it concentrates neurobiological, psychological, affective and sociocultural processes that structure, in a deep and lasting way, the cognitive, emotional and behavioral functioning of the individual. In the field of neuropsychopedagogy, the understanding of neural plasticity occupies a central position by showing that the children's brain not only responds to environmental stimuli, but reorganizes itself functionally and structurally based on lived experiences.

Neural plasticity refers to the possibility of modification of synaptic connections, brain activation patterns, and the functional organization of neural circuits in response to interactions with the environment. In the first years of life, this phenomenon manifests itself in an intensified way, due to accelerated synaptogenesis, progressive myelination, and functional specialization of the infant brain. During this period, affective, linguistic, and relational experiences act as central organizers of neural architecture, directly influencing the consolidation of systems responsible for attention, memory, executive functions, and emotional regulation (OLIVEIRA, 2024).

Associated with neural plasticity, developmental windows are time periods in which certain functions are more sensitive to environmental stimulation. Language, inhibitory control, cognitive flexibility, empathy, and emotional self-regulation are examples of competencies whose consolidation strongly depends on the quality of the experiences lived during these phases. The absence of adequate stimuli or prolonged exposure to adverse contexts can compromise the closure of these windows, requiring more complex and often less effective subsequent interventions. Such an understanding reinforces early childhood as a critical and strategic stage for the organization of human behavior (OLIVEIRA, 2024).

From the neuropsychopedagogical point of view, child development does not result from spontaneous maturation, but from continuous interactions between organism and environment. Educational, affective and symbolic experiences work as mediators of development, guiding the activation and strengthening of specific neural networks. In this



sense, the quality of early interactions — marked by emotional responsiveness, relational predictability, and cognitive stimulation — directly influences brain organization, establishing functioning patterns that tend to stabilize throughout the life cycle (SOARES, 2024).

The family assumes a central role in this process because it constitutes the first and most significant context of the child's experiences. The interactions established with primary caregivers are configured as affective and cognitive matrices that guide the construction of mental schemes, beliefs, values and modes of relationship. The daily repetition of educational practices, communication styles, and conflict resolution strategies contributes to the consolidation of neural circuits associated with empathy, self-control, and decision-making. Thus, neural plasticity does not operate in an abstract way, but is continuously modulated by the relational dynamics experienced in the family environment (DA SILVA MAIA, 2024). In this sense, Angelini (2023) highlights that:

The organization of the child's brain occurs in close articulation with the relational experiences lived in the early years, so that the affective bonds established in this period not only accompany development, but structure it in its functional base. The neural plasticity of early childhood constitutes, therefore, a field of possibilities, in which the experiences of care, affection, and symbolic interaction play a decisive role in the configuration of emotional, cognitive, and behavioral patterns that will be projected throughout life (ANGELINI, 2023, p. 87).

Emotion regulation is one of the behavioral bases most strongly influenced by neural plasticity and early interactions. Consistent affective experiences shape the neural systems involved in emotional processing, influencing a child's ability to recognize, express, and regulate emotions. Environments characterized by emotional safety favor adaptive responses to stress, while contexts marked by instability, negligence, or unpredictability tend to generate dysfunctional patterns of emotional reactivity. These patterns, when reiterated, tend to be perpetuated throughout life, impacting interpersonal relationships, academic performance, and mental health (MOREIRA, 2021; FILÓ, 2024).

Executive functions—planning, inhibitory control, and cognitive flexibility—constitute another fundamental axis of future behavior strongly influenced by neural plasticity in early childhood. These functions depend on the maturation and integration of prefrontal circuits, which are highly sensitive to initial environmental experiences. Educational practices that stimulate autonomy, problem solving, and internalization of rules favor the strengthening of these skills, while chaotic or excessively controlling



environments tend to limit their development. The impact of executive functions extends throughout life, influencing academic, professional, and social choices (HENNEMANN, 2024). Oliveira (2024) reinforces this understanding by stating that:

The windows of development associated with executive functions represent critical periods in which the educational experience plays an organizing role on the prefrontal circuits. The quality of interactions experienced in early childhood defines, to a large extent, the future capacity for self-regulation, decision-making, and social adaptation, showing that early investment is not only pedagogical, but structural for human development (OLIVEIRA, 2024, p. 112).

Playfulness emerges as a privileged strategy for activating neural plasticity, by integrating cognitive, emotional, and social dimensions into meaningful experiences. Through play, the child experiences social roles, internalizes rules and symbolically elaborates emotions and conflicts, favoring the consolidation of complex neural circuits. During the development windows, playful experiences take on a structuring role, contributing to the formation of cooperative, creative and resilient behaviors. The absence of qualified playful opportunities can restrict the exploration of children's developmental potential (CARDOSO, 2024).

The child's psychic organization, in turn, is constituted from the articulation between neural plasticity and affective bonds. Early interactions not only modulate cognitive development, but organize the foundations of subjectivity, influencing identity, self-esteem, and forms of relationship with others. Children who experience affectively responsive relationships develop internal models of security, while experiences of rejection or neglect tend to generate emotional insecurity and psychic fragmentation, with lasting repercussions on behavior (SOARES, 2024; MARTINEZ, 2022).

Cultural analysis shows that neural plasticity and psychic organization are crossed by specific sociocultural practices. In the Japanese context, the emphasis on collectivity, discipline and social belonging from early childhood contributes to the formation of behavioral patterns guided by cooperation and respect for norms. In Brazil, the diversity of family arrangements and socioeconomic inequalities produce heterogeneous childhood experiences, unevenly impacting the use of development windows. This comparison reinforces that human development does not occur in the abstract, but in concrete historical and cultural contexts (BEPPU; SOUZA, 2022).



The inclusion of children with neurodevelopmental disorders or with high abilities broadens the understanding of developmental windows by showing that neural plasticity can be enhanced or compromised according to the quality of early interventions. Adequate identification and follow-up during early childhood enable significant functional reorganizations, minimizing difficulties and expanding potentialities. The absence of specialized support in this period tends to intensify challenges and limit future trajectories (ROEDER, 2020).

### 3 METHODOLOGY

The present study consists of a **bibliographic review** with a **qualitative approach**, with an **exploratory and analytical-interpretative purpose**, appropriate when seeking to understand concepts, construct categories and deepen theoretical foundations on an educational phenomenon and human development (GIL, 2008; MINAYO, 2014). The literature review was adopted because it allows the critical systematization of the knowledge produced, articulating different perspectives and evidencing convergences, gaps and controversies in the field investigated (LAKATOS; MARCONI, 2003).

The survey of publications was carried out in databases recognized for their academic relevance, including **SciELO, CAPES Journal Portal, ERIC, PubMed and Google Scholar**, combining descriptors in Portuguese and English by Boolean operators, such as: *neural plasticity, early childhood, developmental windows, early interactions, affective bonds, neuropsychopedagogy, neural plasticity and early childhood*. To ensure timeliness and consistency, studies between **2015 and 2025** were prioritized, without excluding reference works when necessary for conceptual support (GIL, 2008). The **inclusion criteria** included articles, books, and chapters that directly addressed the relationship between child development, early experiences, and family/school mediations; texts without thematic adherence, duplicates, or that were restricted to populations outside the age and conceptual range adopted were excluded (LAKATOS; MARCONI, 2003).

The analysis of the material followed stages of **exploratory reading, selection, analytical reading and interpretative synthesis**, according to recommended procedures for theoretical reviews (GIL, 2008; MINAYO, 2014). To organize the findings, **thematic content analysis** was used, allowing the construction of categories and



interpretative inference from the corpus, focusing on axes such as neural plasticity, developmental windows, emotional regulation, language, executive functions, and affective bonds (BARDIN, 2016). The report of the process sought transparency and traceability of the choices, in line with good review practices by explaining bases, descriptors, criteria and analytical procedure (GALVÃO; RICARTE, 2020).

#### **4 ANALYSIS AND DISCUSSION OF THE RESULTS**

The analysis of the selected studies shows consistent theoretical convergence regarding the centrality of early childhood as a structuring period of human development, especially with regard to neural plasticity, developmental windows, and the constitution of future behavioral patterns. The first years of life concentrate neurobiological processes of high sensitivity to environmental stimulation, in which affective, cognitive, and social experiences exert a decisive influence on the functional organization of the brain and on the formation of the child psyche (ANGELINI, 2023; OLIVEIRA, 2024).

Neural plasticity, intensified in early childhood, is the main mechanism through which early experiences are incorporated into brain functioning. Studies show that the quality of interactions experienced during this period — especially those mediated by the family — directly influences the consolidation of neural circuits associated with emotional regulation, language, and executive functions, competencies broadly related to adaptive behavior and later academic performance (SOARES, 2024; HENNEMANN, 2024). This evidence reinforces the understanding that child development cannot be interpreted as a spontaneous or exclusively maturational process, but as the result of continuous interactions between organism and environment.

With regard to developmental windows, the authors converge by stating that certain periods of childhood are more susceptible to environmental stimulation, especially for the development of language, emotional self-regulation and inhibitory control. The absence of adequate stimuli during these phases tends to compromise the consolidation of these functions, requiring more complex and often less effective later interventions (OLIVEIRA, 2024; DA SILVA MOURA; DA SILVA; MARTINS, 2020). This finding supports the relevance of educational policies and practices that prioritize early, preventive, and intentionally structured interventions.

The central role of the family stands out as the main mediator of children's experiences. Parenting practices, communication styles and affective coherence



establish the bases of the child's psychic organization and future behavior. Family environments marked by emotional responsiveness, predictability, and secure bonds favor the development of empathy, autonomy, and the ability to cope with challenges, while unstable or negligent contexts tend to generate persistent difficulties in self-regulation and social adaptation (DA SILVA MAIA, 2024; MOREIRA, 2021; FILÓ, 2024).

Another recurring axis in the studies analyzed refers to the importance of executive functions as mediators between neuropsychological development and future behavior. The literature shows that skills such as planning, cognitive flexibility, and inhibitory control, developed early, have a direct impact on academic trajectories, interpersonal relationships, and social insertion throughout life (HENNEMANN, 2024). These results reinforce the need for educational practices that promote autonomy, problem solving, and internalization of rules from early childhood.

Playfulness emerges in studies as a privileged strategy for the activation of neural plasticity and for the integration between cognitive, emotional and social dimensions of development. Playing is presented as a structuring device for learning and psychic organization, allowing the child to experience rules, social roles and emotions in safe symbolic contexts. The absence of qualified playful experiences, according to Cardoso (2024), limits the exploration of children's developmental potential and compromises the consolidation of cooperative and resilient behaviors.

The comparative analysis between cultural contexts, especially Brazil and Japan, reveals that neural plasticity and the use of developmental windows are modulated by specific sociocultural practices. While the Japanese context is characterized by a strong emphasis on collectivity, discipline and social belonging from early childhood, the Brazilian scenario presents greater heterogeneity of experiences, marked by socioeconomic inequalities that have an unequal impact on child development (BEPPU; SOUZA, 2022; COSTA, 2025). These findings reinforce that human development does not occur in a homogeneous way, being crossed by historical, cultural and structural factors.

## 5 CONCLUSION

Early childhood is a structuring stage of human development, in which neural plasticity and developmental windows play a central role in the organization of future behavior. Evidence indicates that early experiences, mediated by qualified affective,



linguistic and educational interactions, directly influence the consolidation of neural circuits associated with emotional regulation, language and executive functions, fundamental competencies for academic performance, social adaptation and mental health throughout the life cycle.

The centrality of the family is the main mediator of children's experiences, since consistent parenting practices, secure affective bonds and emotionally predictable environments favor the child's integral development. The literature indicates that fragile family contexts, marked by emotional instability or absence of adequate stimuli, tend to compromise psychic organization and socio-emotional development, increasing the risk of learning difficulties and future behavioral problems. In this sense, the articulation between family, school and specialized professionals emerges as a strategic axis to enhance the use of development windows.

Finally, the neuropsychopedagogical approach allows us to understand the criticality of early childhood not from a deterministic perspective, but as a privileged window of opportunity for qualified and contextualized interventions. The neural plasticity characteristic of this period enables significant functional reorganizations, especially when there are intentional, inclusive and culturally sensitive educational practices, capable of responding to the singularities of child development.

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