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Pedagogical Strategies Based on Play to Improve Emotional Self-Regulation in Early Childhood Education

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Abstract---*Socio-emotional development and self-regulation in early childhood form the foundation for holistic well-being and subsequent academic success. In recent years, early childhood classrooms have faced new social and emotional challenges that require innovative and effective pedagogical approaches. The aim of this research is to conduct a systematic review analyzing the most recent scientific evidence on the effects of play-based educational strategies on improving emotional self-regulation in children aged 3 to 6 years. A systematic review was used as the methodology, employing rigorous literature searches in effective databases such as Scopus, Web of Science, SciELO, and ERIC for the years 2020 to 2026. The results of the review show that methodologies based on structured and guided play increase inhibitory control, cognitive flexibility, and frustration management in early childhood. It also highlights that intentional teacher mediation acts as a critical moderator in the transformation of leisure activities into sustainable socio-emotional skills and identifies theoretical gaps in the integration of these practices in rural and vulnerable environments.*
Keywords---*Early childhood education, games, socio-emotional development*

Introduction

There is a documented gap in the literature on how preschoolers can structure practical social-emotional programs that are not solely based on clinical intervention, but rather on the teacher's daily mediating role through play. Socio-emotional development in early childhood, which traditionally occurs between the ages of 3 and 6, forms the foundation upon which mental health, well-being, and academic performance are built throughout life (Eisenberg et al., 2019). During this evolutionary period, the maturation of neurobiological structures associated with inhibitory control and cognitive flexibility, particularly in the prefrontal cortex, undergoes exponential growth strongly influenced by the psychosocial and educational environment (Anangonó, 2024). There is a set of essential mental processes that enable a student to organize their ideas, manage their emotions, and achieve their academic goals.

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Executive functions help us understand how to support learning in the classroom and promote quality learning (Executive Functions, 2025).

Thus, preschool classrooms function not only as spaces for early academic instruction, but also as a basic ecological niche where girls and boys learn to recognize, modulate, and express their emotions in the face of frustration and coexistence with their peers.

However, contemporary educational contexts face serious challenges stemming from accelerated sociocultural changes and the devastating effects of recent global crises on social and family structures (UNESCO, 2023). Several international reports warn of significant increases in self-regulation difficulties, social anxiety, and socio-emotional skill deficits in children under six years of age (Olhaberry & Sieverson, 2022).

In this context, Latin American and global education systems need to reorient traditional practices, shifting from punitive or purely academic models to humanistic approaches focused on integrated development. Within this range of educational responses, play is established anthropologically and psychologically as the natural language of childhood and an excellent methodological tool for promoting meaningful learning (Vygotsky & Cole, 1978; Bodrova & Leong, 2015a).

Structured, guided, and free play allows infants to negotiate rules, symbolize complex emotions, and practice delaying gratification in a safe environment. However, despite extensive theoretical literature emphasizing the virtues of play, there is considerable variation in empirical evidence regarding which specific play-based educational interventions produce the strongest and most lasting effects on emotional self-regulation in early childhood education settings (Pyle et al., 2022).

The need for this study is directly related to the urgency of synthesizing, evaluating, and formulating the scientific knowledge created in recent years (2020-2026), which is characterized by the need to re-establish social connections in classrooms after school holidays. By critically examining international empirical findings, this article aims not only to identify the most effective recreational strategies but also to address existing geographical and methodological gaps, offering teachers, principals, and decision-makers input based on rigorous scientific evidence. Therefore, the objective was to analyze the latest scientific evidence on the effects of play-based educational strategies on strengthening emotional self-regulation in children aged 3 to 6 years.

Materials and Methods

A systematic review was conducted with a rigorous bibliographic search in high-impact databases such as Scopus, Web of Science, SciELO, and ERIC for the period 2020-2026. A qualitative analysis of the reviewed articles was performed, noting that playful strategies in early ages help the child adapt to the social environment and thereby learn about the values that are learned from the theories of Piaget and Vygotsky.

Results

The search, screening, and selection process, conducted according to the PRISMA 2020 criteria, allowed for the consolidation of a corpus of empirical studies and recent reviews examining the impact of play strategies on children's emotional self-regulation. Based on the qualitative and thematic analysis of the selected literature, the findings are structured around three fundamental axes:

Types of play strategies and their differential effectiveness

The evidence analyzed highlights that not all types of play have the same impact on the socio-emotional development of children aged 3 to 6. The reviewed studies agree that guided sociodramatic play and structured rule-based games are the strategies that show the highest rates of effectiveness in the early childhood classroom (Bodrova & Leong 2015b). Unlike unmediated free play, play-based activities where the teacher introduces symbolic rules or specific roles require children to regulate their own impulses to adapt to the group dynamics and respect turns. Recent literature (2020–2026) emphasizes that the structure of play acts as an external scaffolding that facilitates the transition to internal self-control, significantly reducing episodes of frustration and disruptive behavior in group settings (Córdova-Alvarado et al., 2025).

Impact on inhibitory control and cognitive flexibility

From the neurocognitive perspective evaluated in the included empirical studies, play-based interventions demonstrate a direct correlation with the improvement of executive functions in early childhood (Vita-Barrull et al.,

2023). Symbolic play and play-motor activities are observed to significantly stimulate inhibitory control (the ability to stop an impulsive action) and cognitive flexibility (adaptation to unforeseen changes in the rules of the game). The authors report that infants systematically exposed to play-based educational programs demonstrate a greater ability to delay gratification and manage anger in situations of competition or disagreement with their peers, showing that the play environment acts as a safe simulator of socio-emotional stress situations (Bos et al., 2026).

The mediating role and the pedagogical intention of the teacher

A common and critical finding in contemporary literature is that the success of play-based methodologies does not depend exclusively on the activity itself, but on teacher mediation (Bacsa-Károlyi & Fehérvári, 2024). The articles analyzed emphasize that intentional pedagogical intervention, where the educator accompanies, poses cognitive challenges within the game and validates emerging emotions, multiplies the positive impact on socio-emotional development (Rivadeneira & Soledispa, 2026). When the teacher assumes an active facilitator role, helping and guiding conflict resolution during play, children develop a richer emotional vocabulary and more sophisticated self-regulation strategies compared to classrooms where play occurs completely spontaneously or unattended (Twiner et al., 2022).

Figure 1 shows the elements that contribute to the cognitive development of early childhood children (between 3 and 6 years old). As can be seen in the image, play-based strategies contribute to the cognitive development of children, and with the teacher's intervention, this helps to enhance the teaching process, improving language skills (Sedova et al., 2016), memory, and therefore problem-solving (Clara Ventura, 2016). However, to achieve this, these recreational activities must be adapted to safe spaces, where there are materials that attract learners and where there is positive social interaction.

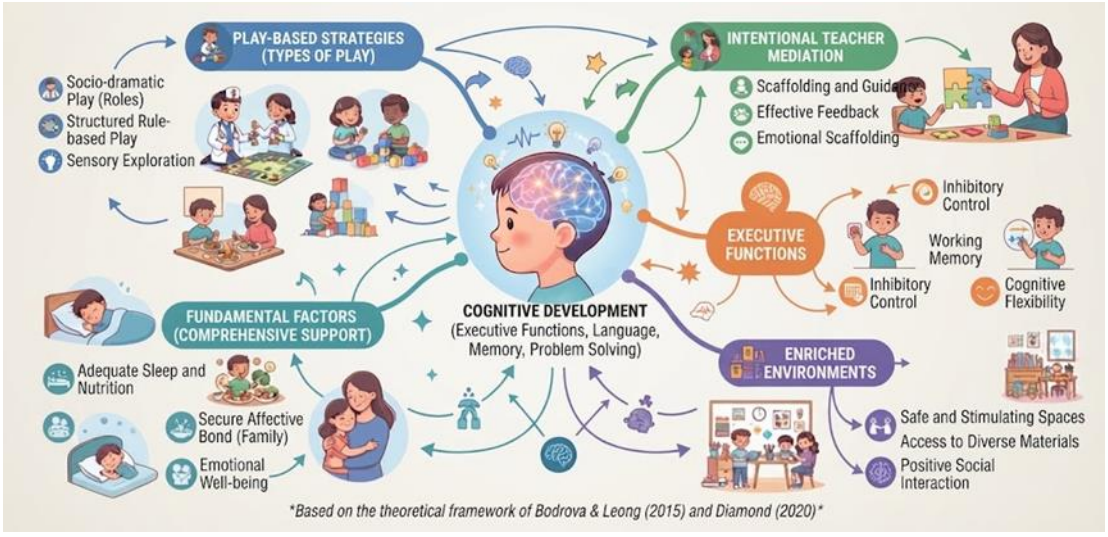


Figure 1. Elements that contribute to the cognitive development of early childhood children

A basic strategy is to have well-prepared teachers capable of facing the challenges of learners. Today, the media and information resources enhance teaching and learning based on the interests, needs, and opportunities presented by the educational context, according to Vahos et al. (2019). ICTs play an essential role in this scenario, where teachers must be prepared to face these challenges, which must now be implemented through active technologies (Sánchez et al., 2026). Figure 2 shows the active methodologies that can be applied in early childhood education (children aged 3 to 6 years).

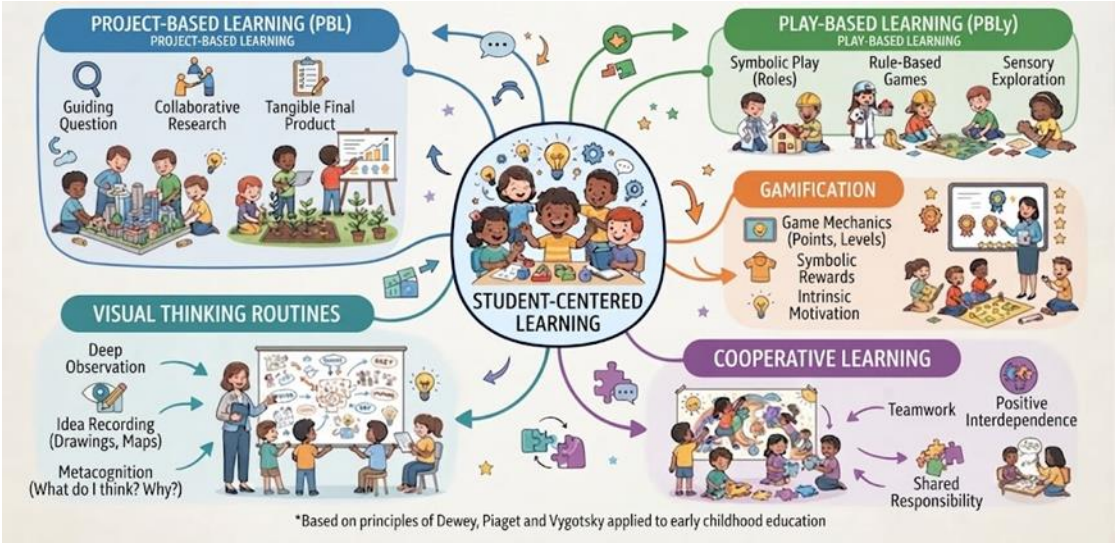


Figure 2. Active methodologies in Early Childhood Education (3-6 years)

As can be seen, everything is based on student-centered learning, according to the pedagogical and philosophical principles of John Dewey, widely analyzed in academic publications indexed on platforms such as ScienceDirect, which form the basis of advanced education and experiential learning (Hoang & Hoang 2025; Planas, 2016; Saharan Africa 2026).

Several authors have also referred to learning as Piaget planned it (Dobber et al. 2017; Jean Piaget's Theory of Learning, 2026; Darós 2018). J. Piaget, as he is known, taking into account the established principle of organization, proposed that learning involves self-organization and self-structuring of all the forces in the human being, where the growing leadership of the self in a reciprocal atmosphere and in accordance with a life plan makes learning an appropriate process that leads to the development of the person. He proposed that the development of the mind develops the person. His reflections on cognitive development, in parallel with his epistemological vision, gave rise to the study of genetic epistemology (Klasik et al., 2006).

Lev Vygotsky's sociocultural theory has a social origin; it is used in preschool education (primary education), where it reaffirms that the cognitive development of young children does not occur in isolation but is a direct result of social and cultural interactions in their daily environment (Sánchez, 2019). This author proposes how modern learning methodologies incorporate Vygotsky's ideas through the follow-up of pedagogical activities (Howley-Rouse, 2021).

In this context, one of Vygotsky's most revolutionary contributions is the gap between what a child can do independently and what they can achieve with the guidance of an adult or a more capable peer. This provides temporary support that allows the infant to regulate their emotions, solve complex problems, or tolerate frustration that they could not manage alone.

Vygotsky's sociocultural theory, widely used in preschool education, states that the cognitive development of young children does not occur in isolation, but is a direct result of social and cultural interactions in their everyday environment (Sánchez, 2019). According to this approach, learning precedes development and takes place in the zone of proximal development, where the mediation of adults or peers serves as an essential environment.

Contemporary teaching methods embrace these ideas, recognizing that sociodramatic play and guided learning activities not only entertain but also serve as psychological tools for self-regulation. By assuming roles and following shared rules in a safe environment, infants internalize self-control and frustration management before they can learn these skills in a strictly individualized way (Howley-Rouse, 2021). The study found that Piaget's theories related to cognitive constructivism and Vygotsky's theories related to sociocultural and historical factors have been implemented in different geographical settings. Figure 3 shows the various territories where these theories have been used, demonstrating their continued relevance today

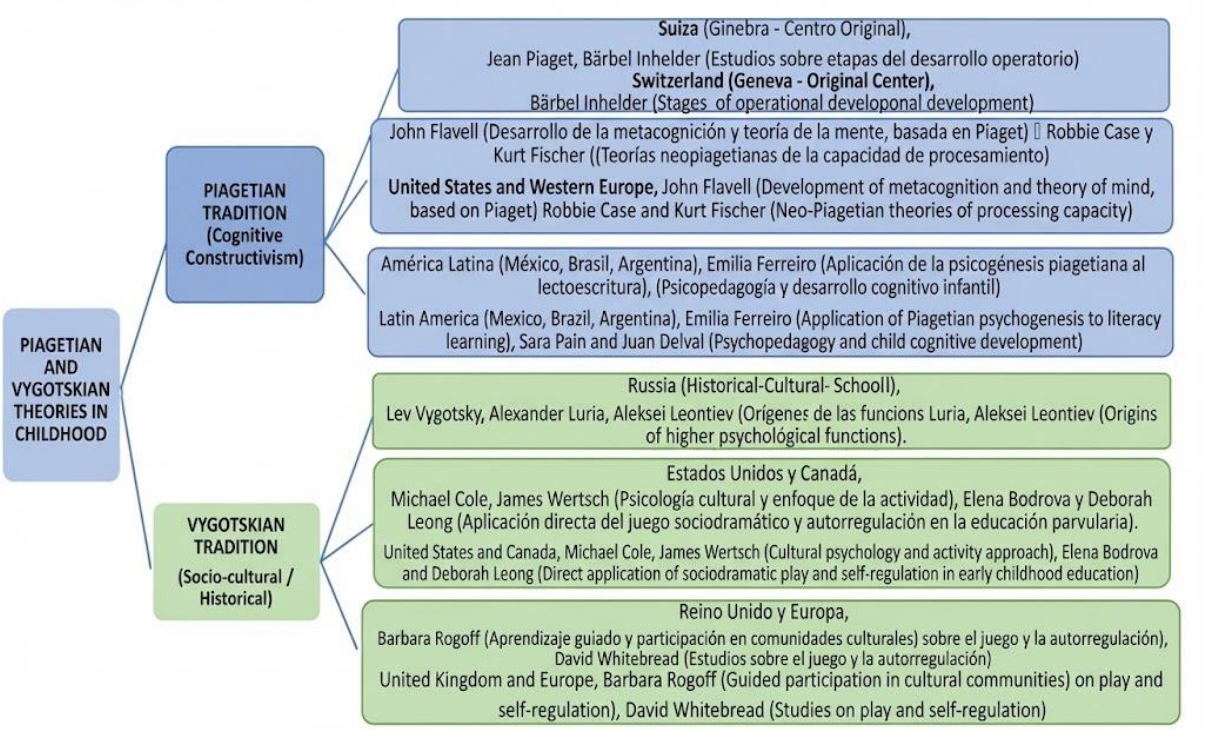


Figure 3. Theories of Piaget and Vygotsky in different geographical areas

As can be seen, these theories have been implemented in different parts of the world, highlighting the importance of applying them to children at early ages. It is noted that the development of children's thinking has been historically interpreted using two main epistemological and psychological traditions that, although different in their starting points, converge in the search to understand how the child constructs knowledge: the Piagetian tradition (cognitive constructivism) and the Vygotskian tradition (sociohistorical and cultural).

Piagetian tradition: constructivism and cognitive structuring

This current, which originated in Switzerland at the International Centre for Genetic Epistemology in Geneva, Jean Piaget and Berbel Inhelder postulate that children's cognitive development occurs in generally consistent stages in which the child acts as a "little scientist" who independently explores the physical environment (Bodrova & Leong, 2015).

In the context of North America and Western Europe, theorists like John Flavell expanded these postulates to include the study of metacognition and theory of mind. Similarly, neo-Piagetian authors such as Robbie Case and Kurt Fischer were the leading exponents of these theories of cognitive development (Feldman, 2004). Both authors accepted Jean Piaget's central premise that knowledge is constructed in organized and active stages, but they integrated modern concepts of information processing. They reinterpreted Piaget's stages from the perspective of information processing capacity and working memory (Diamond, 2020).

In the Latin American region, it had a special impact in countries like Mexico, Brazil, and Argentina. Piagetian psychogenesis revolutionized early childhood pedagogy thanks to researchers like Emilia Ferreiro, who demonstrated how children construct active hypotheses about literacy long before formal instruction, supported by the psychopedagogical contributions of Sara Paín (Enrico & Fernández, 2020) and Juan Delval (Human Development, 1994).

The Vygotskian Tradition: The Sociocultural Approach and the External Mediator

The sociocultural school, founded in Russia by Lev Vygotsky, Alexander Luria, and Alexei Leontiev, maintains that higher psychological functions arise not from isolated biological maturation, but from the internalization of cultural and social interactions, introducing guiding concepts such as the Zone of Proximal Development (ZPD) (Vygotsky & Cole, 1978). This school had an international impact and practical application in the United States and Canada,

where researchers such as Michael Cole and James Wertsch consolidated cultural psychology and the activity-based approach (Navarro & Cole, 2018; Erausquin, 2007).

In the specific field of contemporary early childhood education, authors such as Elena Bodrova and Deborah Leong have successfully operationalized Vygotskian theory, demonstrating that structured sociodramatic play acts as the main scaffolding for the development of self-regulation and self-control in children aged 3 to 6 years (Bodrova & Leong, 2015).

In Europe and the UK, researchers such as Barbara Rogoff have simultaneously explored guided learning and participation in cultural communities in British and European contexts, while David Whitebread has provided key empirical evidence of the direct link between self-regulated play and children's cognitive performance (Zosh et al., 2018).

Socio-emotional development and self-regulation in early childhood in Latin America and Ecuador

The analysis of socio-emotional development and self-regulation in early childhood takes on compelling meaning when placed within the socio-political and cultural context of Latin America, and Ecuador in particular. Unlike industrialized countries, the Latin American context is characterized by profound socio-economic inequalities, social vulnerabilities, and structural problems in early childhood education systems that directly affect children's well-being (UNESCO, 2023). In this regional scenario, kindergarten ceases to be merely a space for cognitive preparation and becomes a critical bastion of social equality and emotional resilience, where boys and girls find a protective environment against socio-environmental adversities.

In the specific case of Ecuador, national policies aimed at early childhood have formalized curricula and recognized early childhood education as a fundamental right within the national education system. However, the practical implementation of programs designed to develop socio-emotional competence and self-regulation faces significant operational obstacles. These include classroom overcrowding, a lack of specialized recreational learning resources, and the need for ongoing teacher training that shifts from traditional, punitive approaches to active, play-based methods (Bodrova & Leong, 2015). Local and regional studies show that when educational institutions implement deliberate play-based mediation, the consequences of social exclusion are significantly reduced, and executive functions improve in early childhood (Diamond, 2020).

In the region, strengthening emotional self-regulation in the early years of life in Latin America and Ecuador is not an educational luxury, but a long-term strategy for social transformation. The evidence gathered in this review suggests that future research agendas and educational policies should prioritize the provision of adequate recreational infrastructure and the strengthening of initial and in-service teacher training. Only with a pedagogy centered on emotional well-being and structured play as the driving force behind cognitive development will it be possible to create more resilient communities of children, capable of transforming their social reality from the foundations of early childhood education.

Conclusions

Methods based on structured and guided play increase inhibitory control, cognitive flexibility, and frustration management in early childhood. The study also highlights that intentional teacher mediation acts as a critical moderator in transforming leisure activities into sustainable socio-emotional skills and identifies theoretical gaps in integrating these practices in rural and vulnerable settings.

In Latin America and Ecuador, a long-term social transformation strategy must be developed. The evidence gathered in this review suggests that future research agendas and educational policies should prioritize the provision of adequate recreational infrastructure in early childhood education centers.

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