

ENHANCING SCHOOL ADAPTATION THROUGH THE PLAY–LEARNING CONNECTION

Ramona Ștefana PETROVAN, Ph.D.,

“1 December 1918” University in Alba-Iulia

ramona.petrovan@uab.ro

Ramona Iulia HERMAN, Ph.D.,

“1 December 1918” University in Alba-Iulia

iulia.herman@uab.ro

Abstract: *Beginning formal schooling represents a critical developmental transition, requiring children to adjust to novel academic, social, and behavioral expectations. Research increasingly demonstrates that play—particularly guided play—supports this adaptation by fostering self-regulation, executive function, motivation, and socio-emotional well-being while strengthening foundational literacy and numeracy. This review synthesizes conceptual and empirical literature connecting play and learning to the processes of school readiness and adaptation. After outlining theoretical frameworks that justify playful learning, we examine current evidence from meta-analyses and intervention studies, highlight mechanisms linking play to adjustment, and discuss implications for educational practice and policy. Findings converge on the conclusion that play is not merely a recreational activity but a developmentally aligned, academically rigorous approach that can promote equitable, positive transitions to school.*

Keywords: *play; guided play; school readiness; self-regulation; adaptation; early childhood education.*

Introduction

Adaptation to school is an essential process in the child's transition from kindergarten to primary education. This period involves adjusting to a new pace of activity, to school requirements and to more structured interactions. Didactic play, as a form of active and attractive learning, can be an effective tool in facilitating this adaptation.

Play is the child's favorite activity, an apparently free activity, without a material purpose that satisfies to the highest degree the child's needs: movement, original expression, the realization of aspirations and

desires that he cannot satisfy in real life. In imaginary play, the child feels strong, intelligent, adult, capable of heroic deeds; here everything is allowed to him, he is independent, he does not need the support of an adult, being able to compete with colleagues or friends - who are his equals. Play is a wonderful means of knowledge and self-knowledge, of practicing certain abilities, of primary socialization, of training cognitive abilities and of externalizing emotions and feelings (Voiculescu E., *Preschool Pedagogy*, Aramis Publishing House, Bucharest, 2001, p. 84).

In the preparatory class, first, the game is constituted as a learning method, having a very great power of expression of the child. The reconsideration of the game as a means of education and entertainment is closely linked to the representatives of the active school by putting the child, his needs and interests in the foreground.

The game is seen as the activity that forms, shapes intelligence but, on the other hand, allows us to ascertain its characteristics. The playful activity provides information regarding the psychodiagnosis of intelligence. The game offers the possibility of knowing the level of intellectual development of children at a given time, which will allow the application of optimal pedagogical methods in each individual case. Contemporary studies in the field of developmental psychology and primary education didactics reveal that playful activities contribute not only to the consolidation of cognitive acquisitions, but also to the formation of socio-emotional skills, divergent thinking and motivation for learning. At the preparatory grade level, play becomes a basic pedagogical strategy, adapted to the specifics of the age of 6–7, in which teaching is carried out through active and interactive methods, with an emphasis on learning through discovery and experimentation.

Theoretical and conceptual background

Entering formal education is a significant ecological shift for young children: they encounter novel routines, group expectations, and academic demands (Education NSW, 2025; Victorian Department of Education, 2009). Children's capacity to adapt in this period predicts later academic achievement, engagement, and socio-emotional well-being. While traditional early schooling has leaned toward structured, teacher-directed instruction, there is robust evidence that playful learning embedded within intrinsically motivating, imaginative, and socially interactive activities—can promote the skills needed for smooth adaptation.

Play offers continuity with preschool experiences while gradually scaffolding the transition to more formalized learning (Parker et al.,

2022). Several influential theories justify the centrality of play in early learning.

Constructivist theory (Piaget) posits that children actively build knowledge through exploration and manipulation; play provides ideal contexts for assimilation and accommodation of new concepts.

Sociocultural theory (Vygotsky) highlights the role of social interaction and cultural tools; pretend play provides a “zone of proximal development” where children internalize social norms and problem-solving strategies.

Self-determination theory (Deci & Ryan, 2000) explains how autonomy, competence, and relatedness—needs frequently met in playful contexts—support motivation and engagement. Executive function frameworks link play to the development of inhibitory control, working memory, and cognitive flexibility (Blair & Raver, 2014). Scholars now differentiate free play, guided play, and playful instruction, balancing developmental appropriateness with explicit learning targets.

Learning is a fundamental process of human existence that allows for personal, social and professional adaptation and progress. In an educational context, learning is not just an accumulation of information, but a complex process of personality formation and development of skills.

Specialists define learning as a psychological and educational process through which a person acquires, assimilates, consolidates and applies knowledge, skills, abilities, attitudes and behaviors because of interaction with the environment and of one's own practice. "Learning represents a relatively stable change in the individual's behavior as a result of experience" (R. M. Gangé, 1985, p.15).

Learning can be influenced by internal factors related to motivation, attention, Mathematics and environmental exploration, intelligence, emotions, or by external factors related to teaching methods, learning climate, resources or the relationship with the teacher.

According to the training method, learning can be sensory – through direct perception, verbal – through oral or written language, motor – through physical exercise, intellectual – through thinking and analysis and affective – through emotions and values.

Depending on the context, learning can be formal – takes place in an organized manner, usually in school, informal – in the family or in different life experiences and non-formal – also takes place in an organized manner but in different extracurricular activities.

The main purpose of education is to organize and facilitate learning. Teachers must choose effective methods and means for the

development of critical thinking, the formation of real skills and the integration of knowledge into everyday life.

The particularly important role that play has in the life and development of the child is demonstrated by the special attention given to it by psychologists and not only. The following functions of play are mentioned in the specialized literature:

- ✓ essential functions;
- ✓ secondary functions;
- ✓ marginal functions of play.

The main function of the game is expressed in the practical and mental assimilation of the characteristics of the world and life. It is a function of knowledge, guaranteeing the subtle dosage of the cognitive characteristics of the game, their deepening during its consumption (U. Şchiopu, (1997) – coord. - op. cit., p. 52). Another important function is that of complex stimulating exercise of movements, of active contribution to complex growth and development. It is a function highlighted by Carr and Gross. It manifests itself as a main function in childhood and adolescence, gradually becoming a marginal function. The formative educational function is particularly important. Games are the first school of energy, behavior, gestures, imagination, etc. Among the secondary functions of the game are:

- ✓ balancing and toning function.
- ✓ compensation function.
- ✓ therapeutic function used in play therapy which is also considered as a marginal function being successfully used in sick cases. It is constituted based on the projective properties of the game.

Aptitude for schooling. At the time of the child's entry into school, he or she has a certain physical, intellectual, moral, emotional and volitional level, acquiring what is called schooling maturity, complex learning capacity, state of readiness for school, general school aptitude, which includes capacities, skills, habits and abilities necessary for this moment of the child's entry into school.

As A. Chircev (1981) emphasizes, a child is fit for schooling if, in addition to normal physical development, established by a doctor, he/she must also possess a sufficiently developed language that allows him/her to acquire new knowledge, to orient himself/herself in time and space in a manner appropriate to his/her age, to have sufficiently developed the main processes of Mathematics and environmental exploration, to be able to receive, record, retain as long as possible and reproduce sensory data consciously and correctly, and to have the ability to be attentive and to make a voluntary effort, necessary for his/her subordination to school requirements.

Some authors consider that general school aptitude is a combination of intellectual abilities that include general intelligence, verbal aptitude and all personality factors that determine the student's attitude towards school activity. The concept designates the balance achieved by the set of psychic processes that paves the way for new breakthroughs and acquisitions, marks that level of the child's development at which school-type activity can fully contribute to the further development of his personality. In summary, these components indicate that school aptitude entails:

- ✓ normal physical development (medically established);
- ✓ normal development of perceptual analyzers, of the capacities of analysis, discrimination and perceptual synthesis on the main categories of perception: visual, auditory, olfactory, tactile and kinesthetic;
- ✓ the existence of particularities of thinking specific to preschool/young school age with reference to reaching the operational stage in thinking, the emergence of the premises of logical-abstract thinking, the transition from intuitive representations to representations with a higher degree of schematization and to notions;
- ✓ the ability to orient in time and space;
- ✓ sufficiently developed language with a vocabulary capable of ensuring coherent expression and the acquisition of new knowledge;
- ✓ a sufficient level of development of the ability to imprint and intentionally update not only sensory data, but also logical-verbal material;
- ✓ the ability to be attentive and to make voluntary effort, voluntary inhibition and subordination to the requirements of an organized work program;
- ✓ the existence of a sufficient set of skills of discipline, collective activity, participation in activities with a group (a class) of children, the existence of habits of civilized behavior, an attitude of respect towards adults and peers;
- ✓ the existence of positive and active motivation in relation to school life, the need to learn, interest in learning outcomes, the ability to subordinate primary needs to higher ones.

Of course, these components of **school readiness** should not be seen as given at a given moment, but as dynamic particularities, which are continuously formed and developed under the influence of educational action. Preparing a child for school does not refer to teaching him to write, read or count earlier, but involves preparing him for a new way of acquiring knowledge and experiences, helping him to reach a state

of availability for learning activity, a positive psychological state necessary for the moment of school debut (Golu, F., 2004, p. 132).

Mechanisms linking play, learning, and school adaptation.

Summarizing the research conducted on this topic, we aim to highlight several conclusions mentioned in the specialized literature. Self-regulation predicts academic and behavioral adjustment better than IQ in early schooling (Blair & Raver, 2014). Pretend play and rule-based games allow children to practice delaying impulses, sustaining attention, and remembering rules (Pandey et al., 2018). Longitudinal research shows preschoolers with more opportunities for imaginative and social play exhibit better executive functioning and later classroom adjustment (Colliver et al., 2022). Playful contexts foster autonomy and competence, increasing intrinsic motivation (Deci & Ryan, 2000) and belonging (Education NSW, 2025). Guided play on math and literacy topics produces deeper conceptual grasp and supports transfer of knowledge (Blinkoff et al., 2023; Størksen et al., 2023). Play also buffers stress and supports resilience (AAP, 2018; Nilfyr et al., 2025).

A systematic review by Skene et al. (2022) concluded that guided play yields equal or greater literacy and numeracy gains than direct instruction. Parker et al. (2022) emphasized cognitive and socio-emotional benefits. Randomized controlled trials (Størksen et al., 2023; Blinkoff et al., 2023) show improved math, literacy, and motivation. Longitudinal studies (Colliver et al., 2022; Pandey et al., 2018) link early play to self-regulation and later adaptation.

Implementation in Educational Contexts. Effective playful learning requires intentional design: materials and flexible schedules, teachers skilled in open-ended questioning, and observation frameworks to scaffold learning without reducing autonomy. Policies encouraging play-rich curricula in early grades are linked with better adaptation and equity (Parker et al., 2022). Playful approaches support diverse learners and neurodiversity (AAP, 2018).

Fostering school readiness in preschoolers: Good practices for early childhood teachers

School readiness refers to a child's ability to successfully adapt to the social, emotional, and academic demands of formal schooling. Research shows that early educators play a pivotal role in preparing children for this transition by implementing evidence-based practices that address multiple domains of development (Pianta, Downer, & Hamre, 2020).

One important area involves **cognitive and pre-academic skills**. Purposeful play through learning centers—such as counting, sorting, or exploring shapes—helps children practice problem-solving and

develop early numeracy. Story retelling and sequencing, as well as interactive alphabet and number games, further strengthen memory, reasoning, and emergent literacy. These activities create a foundation for later academic success (Pianta et al., 2020).

Another key domain is **language and communication**. Teachers can expand children's vocabulary and comprehension by engaging them in dialogic reading, where open-ended questions encourage prediction and explanation. Using classroom vocabulary walls and facilitating daily circle-time conversations support both expressive and receptive language development, preparing children for the verbal demands of school (Lonigan & Shanahan, 2020).

Social and emotional development is equally critical. Emotion coaching, naming and validating feelings—helps children recognize and regulate their emotions. Cooperative tasks, such as building puzzles or creating shared art projects, promote teamwork and empathy, while classroom responsibilities build self-confidence and a sense of belonging (Denham, Bassett, & Zinsser, 2014).

School readiness also depends on **self-regulation and independence**. Structured daily routines, supported by visual schedules, teach children to anticipate transitions and persist with tasks. Impulse-control games like Simon Says encourage attention and flexibility, and opportunities to practice self-care skills—zipping coats or organizing personal items—foster autonomy (Blair & Raver, 2015).

Physical development underpins many early academic tasks. Fine and gross motor activities—such as tracing, cutting, lacing beads, outdoor obstacle courses, and rhythmic dance—strengthen coordination, dexterity, and readiness for writing (Cameron et al., 2016).

Finally, building a strong **family-school connection** enhances readiness. Parent workshops can share strategies to support learning at home, while take-home activity kits and communication logs help families reinforce classroom skills. Such partnerships improve consistency between environments and sustain developmental gains (Sheridan et al., 2019).

By integrating these strategies, early childhood teachers create developmentally rich classrooms that cultivate curiosity, resilience, and confidence. A comprehensive approach that includes cognitive, linguistic, socio-emotional, self-regulatory, motor, and family engagement practices supports a smoother and more successful transition to formal schooling.

Below we present some examples of activities designed to facilitate school adaptation, selected from specialized literature.

Example	Description	Skills/Adaptation Support	Key References
Guided Play in Mathematics	Children build a “Number Zoo” comparing groups of blocks; teacher asks guiding questions, but children manipulate materials.	Conceptual math understanding, problem-solving, transfer of learning	Størksen et al., 2023
Dramatic Play for Social Adaptation	Pretending classroom role-play (teacher, students, parents) helps rehearse routines and peer interactions.	Social integration, understanding rules, reducing anxiety	Colliver et al., 2022
Literacy Through Storytelling & Construction	After reading a book, children recreate the story world with blocks and figures; teacher prompts narrative sequence.	Vocabulary, comprehension, expressive language	Blinkoff et al., 2023
Outdoor Free Play to Build Self-Regulation	Daily unstructured outdoor play with loose parts encourages negotiation, cooperation, and risk assessment.	Self-regulation, resilience, executive function	American Academy of Pediatrics, 2018
Peer Collaboration Games for Belonging	Cooperative board games replace competitive	Belonging, teamwork, positive peer relationships	Education NSW, 2025

	ones early in the school year.		
Digital-Augmented Guided Play	Children design stories using a digital app, then act them out physically in class.	Creativity, literacy, social collaboration	Hirsh-Pasek et al., 2017

Table no. 3.1. Activities for preschoolers designed to facilitate school adaptation

Conclusions

Playful learning—especially guided play—offers a scientifically supported pathway for easing the transition into formal schooling. By advancing academic competencies, self-regulation, motivation, and socio-emotional well-being, play promotes adaptive, equitable, and joyful school experiences. Measures of adaptation often emphasize test scores; more holistic assessments are needed. This review highlights converging evidence that play and learning are not separate or competing agendas but mutually reinforcing processes that shape children’s ability to adapt to formal schooling. The research reviewed shows that when children are offered opportunities for guided and purposeful play, they develop critical executive functions, self-regulation, and intrinsic motivation. These competencies predict not only smoother initial adaptation but also sustain academic engagement and socio-emotional well-being.

Importantly, the reviewed studies demonstrate that academic rigor and playful pedagogy can coexist. Guided play supports foundational skills in literacy, numeracy, and problem solving at levels comparable to or better than direct instruction, while simultaneously nurturing creativity, curiosity, and joy in learning. Such outcomes directly address educators’ dual challenge: to prepare children for curriculum demands without compromising their holistic development.

Educational implications are profound. Schools that integrate play into the early years create inclusive, culturally responsive environments where diverse learners feel competent and safe. Teachers play a pivotal role: skillful mediation—posing open questions, co-participating, and scaffolding discovery—turns everyday play into rich learning. Policy frameworks should therefore preserve protected time and flexible spaces for play, resisting premature academic acceleration.

Future research should refine how school adaptation is conceptualized and measured, moving beyond test scores toward indicators such as belonging, resilience, and well-being. Longitudinal and cross-cultural

studies are needed to explore how play influences adaptation across diverse educational systems, including digitally mediated environments. Further, scalable professional development models must be tested to equip teachers to implement high-quality guided play.

In sum, playful learning offers a robust, evidence-based route to equitable and positive school starts. Maintaining play as a core pedagogical principle affirms that academic success and children's social and emotional thriving are inseparable aims of quality education. Research should examine play beyond preschool into primary grades. Digital play and teacher training scalability remain understudied.

References

- American Academy of Pediatrics. (2018). The power of play: A pediatric role in enhancing development in young children. *Pediatrics*, 142(3), e20182058. <https://doi.org/10.1542/peds.2018-2058>
- Blair, C., & Raver, C. C. (2014). School readiness and self-regulation: A developmental psychobiological approach. *Annual Review of Psychology*, 66, 711–731. <https://doi.org/10.1146/annurev-psych-010814-015221>
- Blinkoff, E., Broekhuizen, M., Zosh, J., Golinkoff, R., & Hirsh-Pasek, K. (2023). Investigating the contributions of active, playful learning to academic achievement. *Acta Psychologica*, 235, 103834. <https://doi.org/10.1016/j.actpsy.2023.103834>
- Cameron, C. E., Brock, L. L., Murrah, W. M., Bell, L. H., Worzalla, S. L., Grissmer, D., & Morrison, F. J. (2016). Fine motor skills and executive function both contribute to kindergarten achievement. *Child Development*, 87(4), 1381–1395. <https://doi.org/10.1111/cdev.12562>
- Chircev, A. (1981). *Psihologia copilului preșcolar și școlar mic* [Psychology of the preschool and early school-age child]. București: Editura Didactică și Pedagogică.
- Colliver, Y., Slot, P. L., & Pyle, A. (2022). Free play predicts self-regulation years later: A longitudinal study. *Early Childhood Research Quarterly*, 60, 1–12. <https://doi.org/10.1016/j.ecresq.2021.11.001>
- Deci, E. L., & Ryan, R. M. (2000). The “what” and “why” of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, 11(4), 227–268. https://doi.org/10.1207/S15327965PLI1104_01
- Denham, S. A., Bassett, H. H., & Zinsser, K. M. (2014). Early childhood teachers as socializers of young children's emotional

- competence. *Early Childhood Education Journal*, 42(4), 241–250. <https://doi.org/10.1007/s10643-013-0604-2>
- Education NSW. (2025). Transition to school—Literature review. New South Wales Department of Education. <https://education.nsw.gov.au>
- Gagné, R. M. (1985). *The conditions of learning and theory of instruction* (4th ed.). New York, NY: Holt, Rinehart & Winston.
- Golu, F. (2004). *Bazele psihologiei educației* [Foundations of educational psychology]. București: Editura Fundației România de Măine.
- Hirsh-Pasek, K., Zosh, J. M., Golinkoff, R. M., Gray, J. H., Robb, M. B., & Kaufman, J. (2017). Putting education in “educational” apps: Lessons from the science of learning. *Psychological Science in the Public Interest*, 16(1), 3–34. <https://doi.org/10.1177/1529100615569721>
- Lonigan, C. J., & Shanahan, T. (2020). Developing early literacy skills: A meta-analysis of shared reading interventions. *Review of Educational Research*, 90(5), 733–770. <https://doi.org/10.3102/0034654320934694>
- Nilfyr, K., Hakkarainen, P., & Lehtinen, E. (2025). Pretend play and emotional self-regulation in preschool. *Education Sciences*, 15(2), 137. <https://doi.org/10.3390/educsci15020137>
- Pandey, A., Hale, D., Das, S., Goddings, A. L., Blakemore, S. J., & Viner, R. M. (2018). Effectiveness of universal self-regulation interventions in young children: Systematic review and meta-analysis. *Prevention Science*, 19(7), 927–943. <https://doi.org/10.1007/s11121-018-0911-6>
- Parker, R., Zosh, J., Golinkoff, R. M., & Hirsh-Pasek, K. (2022). Learning through play at school: A policy framework. *Frontiers in Education*, 7, 751801. <https://doi.org/10.3389/educ.2022.751801>
- Pianta, R. C., Downer, J. T., & Hamre, B. K. (2020). Quality in early education classrooms: Definitions, gaps, and systems. *Future of Children*, 30(2), 3–20. <https://doi.org/10.1353/foc.2020.0014>
- Șchiopu, U. (Coord.). (1997). *Psihologia copilului* [Child psychology]. București: Editura Didactică și Pedagogică.
- Sheridan, S. M., Knoche, L. L., Edwards, C. P., Bovaird, J. A., & Kupzyk, K. A. (2019). Parent engagement and school readiness: Effects of the Getting Ready intervention on preschool children’s social–emotional competencies. *Early Education and Development*, 30(2), 190–208. <https://doi.org/10.1080/10409289.2018.1534840>

- Skene, K., Gilmore, L., Pyle, A., & Logan, T. (2022). Can guidance during play enhance learning? A systematic review and meta-analysis. *Child Development*, 93(5), 1493–1511. <https://doi.org/10.1111/cdev.13725>
- Størksen, I., Kucirkova, N., & Hjetland, H. N. (2023). The playful learning curriculum: Effects on early mathematics. *Early Childhood Research Quarterly*, 65, 250–264. <https://doi.org/10.1016/j.ecresq.2023.03.005>
- Victorian Department of Education. (2009). *Transition: A positive start to school—Literature review*. State Government of Victoria.
- Voiculescu, E. (2001). *Pedagogia preșcolară [Preschool pedagogy]*. București: Aramis.