

Implementation of play-based learning program of kindergarten learners

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Abstract

This study assessed the extent of implementation of the Play-Based Learning (PBL) program in public elementary schools in Kabugao Districts 1 and 2 and identified the challenges encountered by teachers in its implementation. The study utilized a descriptive research design with teachers from 34 public elementary schools as respondents. Data were collected through a survey questionnaire and analyzed using frequency count, percentage, weighted mean, and descriptive interpretation. Results showed that the implementation of play-based learning was Very Highly Implemented, with an overall mean of 4.40, indicating that teachers effectively integrate play-based activities in classroom instruction. Despite this, teachers experienced challenges such as inadequate teacher training, limited classroom space, insufficient instructional materials, overcrowded classrooms, limited parental support, and classroom management concerns. The study concluded that sustained support, adequate resources, and continuous professional development are essential to further improve the implementation of play-based learning in schools

Keywords: Play-Based Learning Program; Learners; Schools

1. Introduction

Early Childhood Education (ECE) is globally recognized as a critical foundation that shapes lifelong learning trajectories and well-being. International mandates, notably through Article 31 of the United Nations Convention on the Rights of the Child (UNCRC) and the Sustainable Development Goal 4 (SDG 4) target for quality early childhood development, underscore the universal importance of play as a fundamental right and essential pedagogical tool [1]. Compared to children in traditional, direct-instruction settings, a large body of research shows that children in play-oriented programs have greater social skills, better emotional control, enhanced problem-solving abilities, and a stronger foundation for lifelong learning. [2]

However, there is frequently a significant disconnect between this well-established research and actual application. Academic constraints might cause playtime to decrease in many educational systems around the world, including the Philippines, marginalizing this important strategy in favor of more formal, structured curriculum [3].

Play-based learning (PBL) is globally recognized as a cornerstone of high-quality early childhood education, fundamentally shaping a child's cognitive, physical, and particularly, their socio-emotional development. International bodies, including the United Nations Children's Fund (UNICEF). [4-5] and the United Nations Educational, Scientific and Cultural Organization (UNESCO), advocate for pedagogical approaches that are child-centered and rooted in play, affirming that play is a child's natural medium for learning and understanding the world. [6]

"Play is frequently discussed as though it were an escape from serious education." Play, however, is a serious learning tool for kids. "Childhood truly works through play," the Fred Rogers Center for Early Learning states. Academics, play-

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based learning, and social-emotional growth are all balanced in a full-day kindergarten program have discovered great success with this well-rounded program that promotes the growth of the full child.[7]

Play-based learning is recognized as a fundamental element of effective early childhood education, departing from traditional didactic instructional methods. Empirical research consistently substantiates that play transcends mere recreational engagement; it serves as an essential pedagogical strategy that promotes comprehensive development encompassing cognitive, physical, and critically, social-emotional competencies. Prominent international organizations, such as the LEGO Foundation and UNICEF, endorse playful learning as a means to enhance a child's overall well-being, alleviate stress, and effectively mitigate achievement disparities among young learners. Investigations conducted across various nations, including the United States, Rwanda, and other African countries, correlate both structured and unstructured play with advancements in empathy, conflict resolution, self-regulation, and improved communication abilities. Nevertheless, a pervasive challenge on a global scale is the increasing pressure imposed by academic standards and inflexible curricula, which frequently results in a reduction of playtime in kindergarten environments, despite the voluminous evidence supporting its advantages. This trend, observed since the early 2000s, raises significant concerns regarding the potential undermining of children's readiness for school, particularly in relation to self-regulation and attentional capacities.[8]

Play and SEL are essential components in many early years' curricula. Specifically, play-based learning curricula are becoming increasingly common in kindergarten programs (ages 4–5). Research has shown the long-term benefits of high-quality play-based kindergarten programs, where children are exposed to learning. Children's learning outcomes in a play-based program are higher than those in direct instruction, according to the current research. Through play, kids can discover more about themselves. [9]

According to Pyle and DeLuca cited by Taylor PBL, or play-based learning, combines educational theory with play. PBL puts the needs of the child first and emphasizes the growth, interests, and skills of kids by interacting with and arranging academic learning experiences in a developmentally appropriate manner...[and] that PBL offers pupils deeper and more successful learning experiences than direct education and "free play." PBL provides pupils with the "ability to experiment, to make errors (p. 280) [10]

Play-based learning (PBL) is an educational approach centered on the idea that young children learn best through play. In early childhood education, particularly in kindergarten, play serves as a natural medium through which children explore, experiment, and make sense of the world around them. It goes beyond entertainment—it becomes an essential part of a child's cognitive, social, and emotional development. Play-based learning supports children's ability to acquire knowledge, enhance memory, develop problem-solving skills, and build emotional regulation through meaningful, self-directed activities. These activities often involve storytelling, role-playing, construction, and games that stimulate the mind while engaging the senses. Through interactive storytelling, for example, children are encouraged to think creatively, understand narratives, follow sequences, and even develop early literacy and comprehension skills. [11]

In the Philippines, the value of play-based learning (PBL) in early childhood education is officially recognized and embedded within key national educational frameworks. The Department of Education (DepEd) implements the Kindergarten Education Act of 2011 (Republic Act No. 10157), which mandates a play-based approach as the standard pedagogy for kindergarten programs.[12] This is further supported by the Early Childhood Care and Development (ECCD) Council's National Early Learning Framework (NELF), which identifies play as the "primary learning modality" for young Filipino children. These policies aim to foster holistic development, including crucial socio-emotional skills such as *pakikisama* (getting along with others), cooperation, and self-esteem, which are highly valued in the Filipino cultural context. [13]

The implementation of the DepEd play-based learning program is officially established under DepEd Order No. 47, s. 2016, which mandates that the Kindergarten curriculum be delivered through an integrative and learner-centered approach. This policy recognizes that children at this developmental stage learn most effectively through active exploration and social interaction rather than traditional rote memorization. To operationalize this, classrooms are structured into "Blocks of Time" that balance teacher-led activities with independent play-work periods, utilizing diverse learning centers and manipulatives. Under the current MATATAG Curriculum, this framework has been further strengthened to ensure a seamless transition into the primary grades, focusing on building foundational literacy and numeracy skills through engaging, age-appropriate experiences. Progress is monitored not through formal testing, but through the Philippine Early Childhood Development (ECD) Checklist, which allows teachers to assess a learner's physical, social, and cognitive growth based on their behavior and performance during these structured play activities.

Despite the clear mandates of the Department of Education (DepEd) and the well-documented benefits of play-based learning in early childhood education, its actual implementation in Philippine public schools remains uneven. Studies in the field of Early Childhood Education emphasize that play-based approaches significantly enhance children's socio-emotional, cognitive, and behavioral development. For instance, research by UNESCO highlights that play fosters creativity, collaboration, and emotional regulation, which are essential competencies in the 21st century learning framework.

However, in many public schools—particularly in geographically isolated areas such as Kabugao Districts 1 and 2—several structural and contextual barriers hinder effective implementation. Existing studies point to persistent issues including limited instructional materials, lack of play resources, overcrowded or inadequate classroom spaces, and insufficient access to developmentally appropriate learning tools. Furthermore, teachers often handle multi-grade or large classes, which constrains their ability to facilitate guided play and monitor children's socio-emotional interactions effectively. According to reports from UNICEF, such conditions disproportionately affect early learners in rural settings, widening developmental gaps compared to their urban counterparts.

Professional development also remains a critical concern. Geographic isolation restricts teachers' access to specialized training in play-based pedagogies, resulting in inconsistent instructional practices. While some schools demonstrate innovative integration of play-based strategies, others continue to rely heavily on traditional, teacher-centered approaches. This inconsistency reflects findings in international and local studies that emphasize the need for sustained teacher support and contextualized interventions.

Given these challenges and disparities, there is a clear need for targeted, context-specific research to evaluate the effectiveness of play-based learning in rural Philippine settings. Such research can provide evidence-based recommendations to improve instructional practices, enhance teacher training, and ensure that all learners—regardless of location—benefit from developmentally appropriate, play-centered education.

Hence, the purpose of this study is to fill up the identified research gaps and advance the field of early childhood education. Play-based learning is widely acknowledged as a successful strategy for promoting young learners' holistic development. The Department of Education (DepEd) in the Philippines promotes play-based learning as a component of developmentally appropriate kindergarten teaching methods.

This study is significant because it provides empirical evidence on the implementation of play-based learning, identifies challenges and best practices, and supports the improvement of teaching strategies and policies. The findings of this study will benefit teachers, school leaders, and policymakers by providing insights that can strengthen instructional practices and promote the holistic development of kindergarten learners.

2. Methodology

2.1. Research Design

This study employed a **mixed-method research design** to assess the implementation of Play-Based Learning in public elementary schools in Kabugao Districts 1 and 2.

2.2. Locale of the Study

The respondents of the study were the kindergarten teachers from the 34 public elementary schools in Kabugao Districts 1 and 2 in Kabugao.

2.3. Respondents of the Study

The respondents of the study were the kindergarten teachers from the 34 public elementary schools in Kabugao Districts 1 and 2 in Kabugao.

Table 1 List of Schools in Kabugao Districts I and II

Kabugao District I	Kabugao District II
Apadi Elementary School	Badduat Elementary School
,Cabetaryan Elementary School	Baliwanan Elementary School
Dagara Integrated School	Banan Elementary School
Dibagat Elementary School	Binuan Elementary School
Iyapan Primary School	Culilimtao Elementary School
Kabugao Central School	Dangla Integrated School
Kadikitan Elementary School	Guimitan Primary School
Kagawadan Primary School	Kalliat Integrated School
Lucab Elementary School	Karagawan Elementary School
Madatag Elementary School	Kumao Elementary School
Madduang Elementary School	Laco Elementary School
Malabanig Elementary School	Lenneng Elementary School
Maragat Elementary School	Magabta Elementary School
Musimut Elementary School	, Mallag Primary School
Nagbabalayan Elementary School	Paco Valley Elementary School
Tuyangan Elementary School	Tabba Elementary School
	Taracay Primary School
	Waga Elementary School

2.4. Research Instrumentation

The researcher extracted the survey questionnaire from the work of Siraj-Blatchford and Department of Education (DepEd) Order No. 47, s. 2016. Omnibus Policy on Kindergarten Education. The questionnaire was composed of three parts. Part I Extent on the implementation of play-based learning. Part II dealt with the challenges and issues encountered by teachers in the implementation of play-based learning programs. Part III included the recommendations and suggestions of the respondents for the improvement of the implementation of play-based learning in their respective schools.

2.5. Statistical Analysis

This study employs a mixed-method approach to evaluate the implementation of a play-based learning program, utilizing weighted means and a 5-point Likert scale to quantitatively assess implementation extent and teacher perceptions. Simultaneously, qualitative data regarding participant experiences, challenges, and suggestions are processed through thematic analysis, where responses are coded and categorized to identify prevailing patterns and insights that complement the numerical findings.

Table 2 Extent of Implementation of Play-Based Learning (PBL)

Statement	Mean	DI
Children are given time for unstructured, free play daily.	4.22	VHI
I facilitate guided play activities that focus on specific learning objectives (e.g., sharing, turn-taking).	4.36	VHI
We use dramatic play/role-playing to help children express emotions.	4.14	HI

I use songs, rhymes, and word games as part of the daily routine.	4.57	VHI
I provide opportunities for sensory play (e.g., sand, water, clay).	4.29	VHI
Learning materials (toys, blocks, art supplies) are easily accessible to children during play.	4.25	VHI
I actively interact with children during play to encourage deeper thinking and social interaction.	4.61	VHI
Children have the freedom to choose their own play activities and partners.	4.32	VHI
We use group games with simple rules to teach cooperation and following instructions.	4.40	VHI
The physical classroom environment (space, layout) supports various types of play activities.	4.28	VHI
Mean	4.40	VHI

The findings in Table 2 reveal that Play-Based Learning (PBL) is Very Highly Implemented among teachers, earning an overall mean score of 4.40. This indicates that educators consistently integrate play into their daily routines to support the holistic development of children, aligning with DepEd Order No. 47, s. 2016 and the Kindergarten Education Act. Teachers prioritize active interaction during play (4.61) and the use of songs and rhymes (4.57) to enhance cognitive, social, and literacy skills.

While collaborative games (4.40), student choice (4.32), and sensory play (4.29) are also strongly practiced, the results show that the physical environment (4.28) and dramatic play (4.14) receive slightly less—though still high—emphasis. Overall, the data confirms that teachers are deeply committed to child-centered, experiential approaches that foster creativity, independence, and socio-emotional growth in young learners.

3. Challenges in Implementing Play-Based Learning

3.1. Theme 1. Lack of Teacher Training

One of the major challenges in implementing play-based learning is the lack of adequate teacher training and professional development. Teachers who are not sufficiently trained in child-centered pedagogy often rely on traditional teaching methods rather than exploratory and play-oriented approaches. Research showed that teachers need continuous mentoring and pedagogical support to effectively integrate purposeful play into classroom instruction [33]. Similarly, educators with limited understanding of play pedagogy struggle to connect play experiences with curriculum competencies and learner outcomes [34]. In the Philippine context, the Department of Education through the Kindergarten Curriculum Framework and Republic Act No. 10157 promotes play-based instruction as a developmentally appropriate strategy for young learners.

3.2. Theme 2. Inadequate Classroom Space

The learning environment greatly affects the success of play-based learning implementation. Limited classroom space restricts children's movement, creativity, collaboration, and engagement during play activities [35]. Flexible classroom arrangements and learning centers are necessary for meaningful experiential learning. However, many public schools experience overcrowded classrooms and inadequate facilities. Research further emphasized that cramped learning environments reduce opportunities for active exploration and social interaction among young learners [36]. The Department of Education advocates child-friendly and stimulating learning spaces under the kindergarten education program, yet classroom shortages continue to hinder implementation.

3.3. Theme 3. Insufficient Instructional Materials

Play-based learning requires developmentally appropriate materials such as toys, manipulatives, puzzles, storybooks, and sensory resources. Insufficient learning materials negatively affect children's creativity, exploration, and active participation during play activities [36]. Teachers frequently improvise materials because schools lack adequate instructional resources. Furthermore, the absence of quality learning materials limits opportunities for inquiry-based and hands-on learning experiences [37]. The Department of Education supports the use of contextualized instructional materials through the Learning Resources Management and Development System (LRMDS), although disparities in resource allocation remain among schools.

3.4. Theme 4. Limited Parental Support

Parents' perceptions strongly influence the implementation of play-based learning. Some parents continue to associate quality education with formal academic instruction instead of child-centered play experiences. Studies revealed that many parents perceive play as less academically valuable compared to worksheets and structured activities [38]. This misconception affects parental support for play-based learning both at home and in school. Research further emphasized that parental understanding of purposeful play is important in supporting children's holistic development [39]. The Department of Education encourages school-family partnerships to strengthen awareness regarding the importance of play in children's learning.

3.5. Theme 5. Limited Funding

Financial constraints significantly affect the quality and sustainability of play-based learning implementation. Inadequate funding results in shortages of play materials, poor classroom facilities, and limited teacher training opportunities [40]. Schools with insufficient budgets struggle to provide child-friendly learning environments and developmentally appropriate resources necessary for play-based instruction. Research also suggested that underfunded early childhood programs tend to prioritize academic materials over play resources [41]. The Department of Education recognizes the need for greater investment in early childhood education under the Basic Education Development Plan 2030.

3.6. Theme 6. Overcrowded Classrooms

Large class sizes create difficulties in managing play-based activities effectively. Overcrowded classrooms reduce teacher-child interaction and individualized support, which are essential components of meaningful play-based learning [42]. Teachers handling large groups often struggle to monitor learner participation, behavior, and developmental progress during play sessions. Moreover, smaller class sizes were found to support better learner engagement, social interaction, and collaborative learning experiences [43]. In many Philippine public schools, classroom congestion remains a persistent issue despite policies promoting learner-centered education.

3.7. Theme 7. Diverse Learner Needs

Play-based learning becomes more challenging when classrooms contain learners with varied developmental abilities, interests, and educational needs. Teachers often experience difficulty differentiating play activities to address the needs of diverse learners, including children with disabilities and learning delays [44]. Inclusive classrooms require individualized strategies, adaptive materials, and specialized teacher preparation. Inclusive play-based learning promotes participation and social development but demands sufficient teacher competence and institutional support [45]. The Department of Education promotes inclusive education policies, although teachers frequently report limited support services and insufficient training.

3.8. Theme 8. Safety Concerns

Safety is an important consideration in play-based learning because children engage in active movement and exploration. Inadequate facilities, unsafe play equipment, and poor supervision may expose children to physical injuries during play activities [46]. Schools implementing play-based learning should therefore provide safe and secure learning environments while allowing children opportunities for exploration and appropriate risk-taking. The Department of Education emphasizes child protection, health, and safety standards in kindergarten education programs.

3.9. Theme 9. Lack of Assessment Tools

Assessment in play-based learning remains challenging because traditional paper-and-pencil tests are often inappropriate for measuring developmental growth through play. Teachers frequently struggle to assess learning outcomes using authentic and observation-based methods such as anecdotal records, portfolios, and developmental checklists [47]. Many educators also lack standardized assessment tools and sufficient preparation in evaluating learning during play activities [48]. The Department of Education encourages developmentally appropriate assessment practices under the Kindergarten Curriculum Framework.

3.10. Theme 10. Difficulty Sustaining Attention

Young learners naturally possess shorter attention spans, which can affect participation during play activities. Children remain engaged longer when play activities are meaningful, interactive, and aligned with their interests [49]. However, repetitive or poorly planned activities may reduce learner engagement and focus. Teacher facilitation skills greatly influence learners' sustained attention during guided play experiences [50]. The Department of Education supports

developmentally appropriate and learner-centered instruction that encourages active engagement among kindergarten learners.

3.11. Theme 11. Limited Instructional Time

Play-based learning requires sufficient time for exploration, collaboration, and reflection. However, teachers often experience pressure to complete curriculum competencies within limited schedules. Instructional time constraints frequently lead teachers to prioritize direct instruction over child-led play experiences [51]. Balancing academic requirements and play opportunities remains a common challenge in early childhood classrooms [52]. Although the Department of Education advocates integrated and developmentally appropriate instruction, curricular demands sometimes limit opportunities for extended play activities.

3.12. Theme 12. Classroom Management Issues

Classroom management is another major issue in implementing play-based learning. Since play activities encourage movement and interaction, teachers may encounter noise, conflicts, and behavioral difficulties during classroom facilitation. Teachers without adequate classroom management skills often struggle to maintain balance between learner freedom and classroom order [53]. Effective classroom routines, clear expectations, and positive discipline strategies are necessary for successful play-based instruction [54]. The Department of Education promotes nurturing and learner-friendly classroom environments that support child development while maintaining appropriate behavioral guidance.

4. Conclusion

The study concludes that Play-Based Learning (PBL) Program is successfully and widely implemented in kindergarten classrooms, proving to be a highly effective approach for holistic development through activities like games and sensory play. However, teachers face significant hurdles, including overcrowded classrooms, lack of formal training, and limited resources. To sustain this success, the findings emphasize the need for continuous professional development, better funding, and stronger stakeholder support to ensure a truly conducive learning environment for young learners.

Compliance with ethical standards

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I acknowledge that I have not used ChatGPT or Copilot for refining some of the sections in the document.

Disclosure of conflict of interest

The author declares that no competing interests exist.

Statement of ethical approval

The researcher secured permission from the Schools Division Superintendent, Public Schools District Supervisor, and school head before conducting the study. All information gathered from the participants was treated with utmost confidentiality and used solely for research purposes.

Statement of informed consent

Informed consent was obtained from the PSDS of two Districts in the study before the conduct of the research.

References

- [1] UNCRC Article 31 and SDG4 mandates.
- [2] Hirsh-Pasek, K., & Zosh, J. M. (2014). The potential of play: Tapping into emerging science to promote access to the leading learning approach. *Brookings Institution*
- [3] Sumadyo, Y., et al. (2020). Challenges in the implementation of play-based learning in early childhood education in Indonesia [PDF]. *Journal of Physics: Conference Series*, 1477, 032061.
- [4] UNICEF (2018). *Ready to learn: a global call to action to transform what and how children learn*. UNICEF.

- [5] Zosh, J. M., Hopkins, E. J., Jensen, H., Liu, C., Neale, D., Hirsch-Pasek, K., ... & Whitebread, D. (2018). *Learning through play: a review of the evidence*. The LEGO Foundation.
- [6] UNESCO (2015). *Education 2030: Incheon Declaration and Framework for Action for the implementation of Sustainable Development Goal 4*. UNESCO.
- [7] Peaslee CD. The Power of Play: A Case Study on How Play-Based Learning Can Affect the Oral Language and the Social and Emotional Development of students in the Kindergarten Classroom. Evangel University; 2022.
- [8] Zosh, Jennifer N., et al. Learning through play: a review of the evidence. LEGO Foundation, 2017.
- [9] Larsen N, Pyle A, Danniels E, Marzouca M, Nazeem R. Kindergarten teachers' facilitation of social and emotional learning in classroom play contexts. *Education Inquiry*. 2025 Apr 3;16(2):195-216.
- [10] Taylor ME, Boyer W. Play-based learning: Evidence-based research to improve children's learning experiences in the kindergarten classroom. *Early Childhood Education Journal*. 2020 Mar;48(2):127-33.
- [11] BALAGBIS AS. Effectiveness Of Play-Based Learning Approach Through Interactive Storytelling Techniques to The Cognitive Skills Development of Kindergarten Learners.
- [12] Acosta, L. O., & Acosta, E. (2014). *The implementation of the K to 12 curriculums in the Philippines: Issues and challenges*.
- [13] ECCD Council: National Early Learning Framework (NELF) guidelines and principles.
- [14] Piaget J. *The psychology of the child*. New York: Basic Books; 1972.
- [15] Vygotsky LS. *Mind in society: The development of higher psychological processes*. Cambridge, MA: Harvard University Press; 1978.
- [16] Froebel F. *The education of man*. New York: Appleton; 1887.
- [17] Erikson EH. *Childhood and society*. New York: W.W. Norton & Company; 1963.
- [18] Department of Education. *Kindergarten curriculum guide*. Pasig City: Department of Education; 2016.
- [19] Weisberg DS, Hirsh-Pasek K, Golinkoff RM. Guided play: Principles and practices. *Curr Dir Psychol Sci*. 2022;31(2):145-151.
- [20] Zosh JM, Hopkins EJ, Jensen H, et al. Learning through guided play. *Dev Rev*. 2022;63:100998.
- [21] Neumann MM. Songs and rhymes support early literacy development. *Early Child Dev Care*. 2021;191(7-8):1123-1134.
- [22] Williams KE. The impact of musical play on language learning. *Int J Early Years Educ*. 2020;28(3):234-248.
- [23] Ramani GB, Brownell CA. Social play and cooperation among preschool children. *Early Educ Dev*. 2021;32(4):567-580.
- [24] Fler M. Cooperative play and social competence in early childhood. *Australas J Early Child*. 2020;45(2):101-112.
- [25] Gray P. Child-directed play and learner autonomy. *Am J Play*. 2020;12(3):245-260.
- [26] Yogman M, Garner A. The power of play in child development. *Pediatrics*. 2021;148(3):e2021053497.
- [27] Delgado P, Caçola P. Sensory play and child development. *Early Child Educ J*. 2021;49(6):1105-1113.
- [28] Cameron CE, Brock LL. Experiential learning through sensory activities. *J Educ Psychol*. 2020;112(5):987-999.
- [29] Maxwell LE. Classroom environment and student engagement. *Child Youth Environ*. 2021;31(1):44-59.
- [30] Leggett N, Ford M. Flexible learning environments in early childhood education. *Educ Psychol Rev*. 2022;34(2):765-781.
- [31] Russ SW, Wallace CE. Pretend play and emotional development in children. *Early Child Res Q*. 2021;54:57-66.
- [32] Goldstein TR, Lerner MD. Dramatic play and emotional expression. *Psychol Aesthet Creat Arts*. 2020;14(4):455-463.
- [33] Parker R, Thomsen BS. Learning through play at school: A framework for policy and practice. Copenhagen: LEGO Foundation; 2021.

- [34] Zosh JM, Hopkins EJ, Jensen H, Liu C, Neale D, Hirsh-Pasek K, et al. Learning through play: A review of evidence. LEGO Foundation; 2022.
- [35] Leggett N, Newman L. Play-based learning and intentional teaching in early childhood contexts. *Australas J Early Child.* 2020;45(4):369-82.
- [36] Pramling Samuelsson I, Johansson E. Play-responsive teaching in early childhood education. *Educ Sci.* 2021;11(9):502.
- [37] Fler M. Conceptual playworlds and early childhood pedagogy. *Early Years.* 2021;41(2-3):125-38.
- [38] Wood E, Hedges H. Curriculum in early childhood education: Critical questions about play-based learning. *Curriculum J.* 2022;33(1):5-21.
- [39] Pyle A, DeLuca C, Danniels E. A scoping review of research on play-based pedagogies in kindergarten education. *Rev Educ Res.* 2020;90(3):311-51.
- [40] Weisberg DS, Hirsh-Pasek K, Golinkoff RM. Guided play: Principles and practices. *Curr Dir Psychol Sci.* 2021;30(3):177-82.
- [41] Yoshikawa H, Wuermli AJ, Britto PR, Dreyer B, Leckman JF, Lye SJ, et al. Effects of global crises on early childhood development. *Child Dev.* 2021;92(5):e983-e999.
- [42] Burchinal M, Zaslow M, Tarullo L, Martinez-Beck I. Quality thresholds in early childhood education. *Child Dev Perspect.* 2020;14(2):84-90.
- [43] OECD. Starting Strong VI: Supporting meaningful interactions in early childhood education and care. Paris: OECD Publishing; 2021.
- [44] Barton EE, Smith BJ. Advancing inclusive play-based learning in early childhood classrooms. *Young Except Child.* 2020;23(4):195-208.
- [45] UNESCO. Inclusive early childhood care and education: From commitment to action. Paris: UNESCO; 2021.
- [46] Brussoni M, Olsen LL, Pike I, Sleet DA. Risky play and children's safety: Balancing developmental needs and protection. *Int J Environ Res Public Health.* 2022;19(2):784.
- [47] McLachlan C, Fler M, Edwards S. Early childhood curriculum and assessment. Cambridge: Cambridge University Press; 2021.
- [48] Danniels E, Pyle A. Assessment challenges in play-based kindergarten classrooms. *Early Child Educ J.* 2022;50(4):563-72.
- [49] Hirsh-Pasek K, Zosh JM, Golinkoff RM, Gray JH, Robb MB, Kaufman J. Putting education in educational apps: Lessons from the science of learning. *Psychol Sci Public Interest.* 2020;21(1):3-34.
- [50] Whitebread D. The importance of play for children's development. *Int J Play.* 2021;10(1):1-7.
- [51] Miller E, Almon J. Crisis in kindergarten: Why children need play in school. College Park (MD): Alliance for Childhood; 2020.
- [52] Howard J, Miles GE, Rees-Davies L, Bertenshaw EJ. Play in middle childhood: Everyday play behaviour and associated emotions. *Child Soc.* 2021;35(3):473-89.
- [53] Aina OE, Bipath K. Classroom management strategies in early childhood settings. *South Afr J Child Educ.* 2020;10(1):1-9.
- [54] Sandseter EBH, Kennair LEO. Children's risky play from an evolutionary perspective. *Evol Psychol.* 2021;19(1):1-14.