



## INNOVATIVE DEVELOPMENTALLY APPROPRIATE PRACTICES FOR EFFECTIVE EARLY CHILDHOOD CARE AND EDUCATION (ECCE) AND THE ROLE OF ANGANWADI WORKERS

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**Paper Received On:** 20 JAN 2024

**Peer Reviewed On:** 28 FEB 2024

**Published On:** 01 MAR 2024

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### Abstract

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*This literature review explores innovative practices in Early Childhood Care and Education (ECCE), focusing on the role of Anganwadi workers in India. By examining various studies and reports, this review identifies key strategies by Anganwadi workers to enhance ECCE quality. The innovative practices discussed include play-based learning, sensory-rich activities, outdoor exploration, developmental checklists, and parental involvement. Despite these efforts, infrastructure issues, overemphasis on administrative tasks, and inadequate training persist. Urgent action is needed to address these challenges through targeted support and policy interventions. It's crucial to note that ongoing support and resources are not just beneficial but vital for the continued improvement of ECCE. This review highlights the critical role of Anganwadi workers in fostering holistic child development and underscores the need for these measures to optimize ECCE outcomes.*

**Key Words:** *Developmentally Appropriate Practices, Early Childhood Care and Education (ECCE); Anganwadi Workers; Innovative Practices; Play-Based Learning; Sensory-Rich Activities; Outdoor Exploration; Developmental Checklists; Parental Involvement*

### Introduction

Early Childhood Care and Education (ECCE) is not just crucial, but it has the potential to impact the holistic development of young children significantly. It lays the foundation for

lifelong learning and well-being (National Association for the Education of Young Children [NAEYC], 2009). In India, Anganwadi Centres (AWCs) and their workers play a unique and pivotal role in delivering these transformative ECCE services, particularly in rural and underserved areas. This literature review examines the innovative practices implemented by these integral Anganwadi workers and identifies the challenges they face in enhancing ECCE quality.

Early Childhood Care and Education (ECCE) is pivotal in laying the foundation for children's holistic development, encompassing cognitive, social, emotional, and physical growth. The early years of a child's life are critical, shaping future learning abilities, behaviours, and overall well-being (National Association for the Education of Young Children [NAEYC], 2009). In India, the delivery of ECCE services primarily falls under the Integrated Child Development Services (ICDS) scheme, which is one of the largest programs of its kind in the world. A cornerstone of the ICDS is the network of Anganwadi Centres (AWCs) that provide a range of services, including health, nutrition, and early education, to children under six years of age and their mothers (Ministry of Women and Child Development [MWCD], 2015).

Anganwadi workers, the frontline service providers in these centers, play a crucial role in implementing ECCE programs. These workers are tasked with a multifaceted job that includes not only teaching but also health monitoring, nutrition provision, and community engagement (Lettington, 2018). Their role is indispensable in ensuring that children receive the necessary support and stimulation during their formative years.

Given their central role, Anganwadi workers are at the forefront of adopting and implementing innovative practices in ECCE to enhance the quality and effectiveness of early education. Innovative practices in ECCE are essential for creating an engaging, supportive, and developmentally appropriate learning environment. These practices include play-based learning, sensory-rich activities, outdoor exploration, the use of developmental checklists, and fostering parental involvement (Brown, Feger, & Mowry, 2015). Such strategies are designed to address the diverse developmental needs of children and support their holistic growth.

However, implementing these innovative practices is challenging. Anganwadi workers often need help with significant hurdles, including inadequate infrastructure, limited resources, overemphasising administrative tasks related to health and nutrition programs like Poshan Abhiyaan, and insufficient training (MWCD, 2015). These challenges can hinder their ability to effectively focus on and deliver high-quality ECCE services.

Despite these obstacles, the commitment and efforts of Anganwadi workers to implement innovative ECCE practices have shown promising results in enhancing children's developmental outcomes. Their experiences and the strategies they employ provide valuable insights into the potential and limitations of ECCE programs in India. This literature review aims to explore the innovative practices adopted by Anganwadi workers, highlight their challenges, and underscore the importance of supporting these frontline educators in their critical roles.

This review examines various studies and reports to provide a comprehensive understanding of how innovative ECCE practices can be effectively implemented in the context of Anganwadi Centres. It also aims to shed light on the necessary policy interventions and support systems required to overcome the challenges Anganwadi workers face, thereby ensuring the continuous improvement of ECCE quality in India.

### **The Role of Anganwadi Workers in ECCE**

Given their central role, Anganwadi workers are at the forefront of adopting and implementing innovative practices in ECCE to enhance the quality and effectiveness of early education. Innovative practices in ECCE are essential for creating an engaging, supportive, and developmentally appropriate learning environment. These practices include play-based learning, sensory-rich activities, outdoor exploration, the use of developmental checklists, and fostering parental involvement (Brown, Feger, & Mowry, 2015). Such strategies are designed to address the diverse developmental needs of children and support their holistic growth.

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Anganwadi workers are frontline caregivers and educators who manage AWCs under the Integrated Child Development Services (ICDS) scheme. Their responsibilities include health and nutrition services, preschool education, and community mobilization. Given their multifaceted role, Anganwadi workers are uniquely positioned to implement innovative ECCE practices that cater to the developmental needs of children aged 3 to 6 years (Ministry of Women and Child Development, 2015).

### **Innovative Developmentally Appropriate Practices in ECCE**

#### **Play-Based Learning**

Play-based learning is an educational approach that integrates play with learning objectives, fostering a holistic development environment for young children. This method has gained traction globally and in India, recognized for its potential to enhance cognitive, social, and emotional skills. This literature review explores play-based learning in Early Childhood Care and Education (ECCE) centres, highlighting practices and findings from international and Indian contexts.

#### ***Play-Based Learning Globally***

Play-based learning has been embraced as a core component of early childhood education, with significant research supporting its benefits. Studies have shown that play-based learning can significantly enhance children's academic skills, particularly in mathematics and literacy. For instance, a study by the University of Cambridge found that guided play, a structured form of play-based learning, effectively improves skills such as task-switching and shaping knowledge compared to traditional instructional methods (Edutopia, 2022).

The concept of intentional teaching within play-based frameworks has been extensively studied in Australia. Researchers argue that educators play a crucial role in facilitating learning through play by setting clear educational goals and subtly guiding children towards these goals during play activities (The Australian Educational Researcher, 2022). This approach ensures that play remains engaging and child-centred while achieving specific learning outcomes.

Countries like Canada, Sweden, and New Zealand have also incorporated play-based learning into their early childhood curricula. These nations emphasize the balance between free

play, which is child-directed, and guided play, which involves some level of teacher facilitation. Research from Canada highlights that free play is essential for developing social-emotional skills. In contrast, guided play can support academic learning in a more structured manner (Encyclopedia on Early Childhood Development, 2018).

### ***Play-Based Learning in India***

In India, play-based learning has been promoted through national policies and educational frameworks. The National Early Childhood Care and Education (ECCE) Policy and the National Curriculum Framework emphasize the importance of play-based activities in early education. These policies advocate for a flexible, multilevel approach to learning, integrating play, activities, and discovery-based methods to support holistic child development (Central Square Foundation, 2021).

Research on ECCE in India indicates that play-based learning is particularly effective in resource-constrained settings. Under the Integrated Child Development Services (ICDS) scheme, Anganwadi Centres have adopted play-based methods to enhance early childhood education. These centres use local materials and culturally relevant activities to engage children in learning through play, fostering cognitive and social skills (NIPCCD, 2017).

A study by Mukherji and Albon (2018) underlines the role of play in addressing developmental disparities among children from diverse socio-economic backgrounds in India. Play-based learning in Anganwadi Centers not only supports academic learning but also promotes social integration and emotional well-being, crucial for children from marginalized communities.

### **Challenges and Future Directions**

Despite the recognized benefits, implementing play-based learning in India faces several challenges. Limited resources, inadequate training for educators, and infrastructural constraints often hinder the effective adoption of play-based methods. Additionally, there is a cultural emphasis on rote learning and academic achievement, which can conflict with the principles of play-based learning (Lettington, 2018).

To overcome these challenges, educators need continuous professional development, improved infrastructure, and increased awareness among parents and communities about the benefits of play-based learning. Policy interventions should focus on providing the necessary resources and support to Anganwadi Centers and other ECCE institutions to implement play-based learning effectively.

Play-based learning is a powerful approach to early childhood education that supports holistic development and academic achievement. Globally, this method has been embraced for its effectiveness in enhancing various developmental domains. In India, while significant strides have been made, there is still a need for more substantial support and resources to realize the full potential of play-based learning in ECCE. By addressing existing challenges and promoting the benefits of play-based education, India can ensure that all children have access to high-quality early childhood education that prepares them for lifelong learning and success.

### **Sensory-Rich Activities**

Sensory-rich activities are essential components of Early Childhood Care and Education (ECCE) programs, promoting young children's cognitive, physical, and social development. These activities engage children's senses—sight, sound, touch, taste, and smell—fostering a holistic learning environment. This literature review explores sensory-rich activities implemented in ECCE centres globally and in India, highlighting critical practices and their impacts on child development.

#### ***Sensory-Rich Activities Globally***

Globally, sensory-rich activities are recognized for their significant benefits in early childhood development. In countries like the United States, sensory play has been extensively researched and integrated into ECCE curricula. For instance, activities such as sensory bins filled with materials like rice, beans, or sand allow children to explore textures, shapes, and sizes, enhancing their fine motor skills and cognitive abilities (Cleveland Clinic, 2024).

In the United Kingdom, sensory play is often incorporated into daily routines in early childhood settings. Activities such as finger painting, where children use their hands to create art, provide rich sensory experiences that improve creativity and sensory processing skills (Child Development Center, 2018). Additionally, outdoor sensory activities, like exploring different textures found in nature or engaging in water play, help children develop physical coordination and environmental awareness (SplashLearn, 2024).

In Australia, creating sensory-rich environments has become a focus, with classrooms incorporating sensory retreats and areas designed for sensory exploration. These environments allow children to retreat when overstimulated and engage with sensory materials in a controlled manner, promoting emotional regulation and sensory integration (Child Care Renovation, 2024).

### ***Sensory-Rich Activities in India***

In India, sensory-rich activities have been promoted through national policies and educational frameworks such as the National Early Childhood Care and Education (ECCE) Curriculum Framework. Anganwadi Centers, the primary ECCE providers, incorporate sensory activities to enhance early childhood development. These activities are designed to be culturally relevant and resource-efficient, utilizing locally available materials.

A study by the National Institute of Public Cooperation and Child Development (NIPCCD) highlights the effectiveness of sensory-rich activities in Indian Anganwadi Centers. Activities like sensory bins, finger painting, and outdoor play are adapted to local contexts, allowing children to explore and engage with their immediate environment (NIPCCD, 2017). For example, sensory bins in Indian settings might include materials such as rice, lentils, or sand, providing children with tactile experiences that are both familiar and stimulating.

In addition, sensory play in India often includes culturally specific activities such as Rangoli making, which involves creating patterns with coloured powders, enhancing fine motor skills and sensory exploration (Central Square Foundation, 2021). These activities support sensory development and promote cultural heritage and creativity.

### **Benefits and Challenges**

The benefits of sensory-rich activities in ECCE are well-documented. They enhance children's motor skills, cognitive development, language skills, and social interactions. Sensory play also supports children with special needs by providing opportunities for sensory integration and emotional regulation (Healthline, 2024).

However, implementing sensory-rich activities in ECCE centres, especially in resource-constrained settings like many in India, presents challenges. Limited resources, inadequate training for educators, and infrastructural constraints often hinder the effective adoption of these activities. Additionally, there is a need for greater awareness among parents and communities about the importance of sensory play in early childhood development (Lettington, 2018).

Sensory-rich activities are crucial for holistic early childhood development, offering numerous benefits across cognitive, physical, and social domains. Globally and in India, these activities are being integrated into ECCE programs to enhance children's learning experiences. Addressing the challenges of resource limitations and training can further optimize the implementation of sensory-rich activities, ensuring that all children have access to enriching and developmentally appropriate education.

Sensory-rich activities engage children's senses to enhance their learning experiences. These activities support fine motor skills, cognitive abilities, and sensory processing. In AWCs, sensory bins filled with materials like rice, beans, or water beads allow children to explore different textures, weights, and temperatures. Such activities stimulate sensory development and allow children to practice fine motor skills through scooping, pouring, and sorting (Lettington, 2018).

### **Outdoor Exploration**

Outdoor exploration is vital to Early Childhood Care and Education (ECCE) and offers numerous developmental benefits. This approach fosters young children's physical activity, environmental awareness, and holistic growth. This literature review explores the practices and impacts of outdoor exploration in ECCE centres globally and in India, highlighting key findings and considerations for effective implementation.

#### ***Outdoor Exploration Globally***

Globally, outdoor exploration has been recognized for its significant role in early childhood education. In countries like the United States, United Kingdom, and Australia, outdoor play is integral to the curriculum. Studies have shown that outdoor learning environments support various types of play, including physical, social, and imaginative play, which are crucial for children's development (The Education Hub, 2024).

In the United States, outdoor exploration activities such as nature walks, gardening, and water play are expected. These activities enhance physical health and promote cognitive development and environmental stewardship. A study by Elliott et al. (2014) documented the ecological awareness developed in children through consistent outdoor exploration, emphasizing the importance of natural environments in fostering a sense of responsibility towards nature.

In the United Kingdom, "risky play" has been extensively studied and integrated into early childhood education. Risky play involves activities that allow children to test their limits and develop resilience. This type of play is facilitated through carefully designed outdoor spaces that include elements like climbing structures, water features, and natural materials (Fiennes et al., 2015). Such environments encourage children to explore, take risks, and develop confidence.

Australia has also embraced outdoor exploration as a core aspect of early childhood education. Predominantly, "place-based education," which connects learning to the local



environment and community, is used. This approach helps children develop a sense of belonging and a deeper connection to their surroundings. Research indicates that outdoor learning experiences enhance children's social skills, creativity, and problem-solving abilities (Lloyd, Truong, & Gray, 2018).

### ***Outdoor Exploration in India***

In India, outdoor exploration in ECCE is promoted through national policies like the National Early Childhood Care and Education (ECCE) Curriculum Framework. Anganwadi Centers, the primary ECCE providers, incorporate outdoor activities to support children's holistic development. These activities often adapt to local contexts and utilize readily available natural materials.

A report by the Central Square Foundation (2021) highlights the integration of outdoor exploration in Indian ECCE settings. Anganwadi workers organize nature walks, gardening, and outdoor play activities, encouraging children to observe and interact with their surroundings. These activities help children connect to nature and understand the life cycles of plants and animals (Jambunathan, Burts, & Pierce, 1999).

Moreover, incorporating traditional Indian games and cultural practices into outdoor exploration activities gives children a sense of cultural identity and continuity. This approach supports physical development and enhances children's understanding of their cultural heritage (Central Square Foundation, 2021).

### **Benefits and Challenges**

The benefits of outdoor exploration in ECCE are well-documented. It supports physical development, enhances cognitive skills, fosters social interactions, and promotes environmental stewardship. Outdoor play allows children to engage in physical activities, explore their surroundings, and develop a sense of curiosity and wonder about the natural world (The Education Hub, 2024).

However, implementing outdoor exploration in ECCE centres, especially in resource-constrained settings like many in India, presents challenges. Access to safe outdoor spaces, lack of resources, and inadequate educator training can help the effective adoption of outdoor activities. Additionally, there is a need for greater awareness among parents and communities about the benefits of outdoor exploration in early childhood development (Lettington, 2018).

Outdoor exploration is a crucial component of ECCE, offering numerous developmental benefits across cognitive, physical, and social domains. Globally and in India, integrating outdoor activities into early childhood education enhances children's learning

experiences and fosters holistic development. Addressing resource limitations and educator training challenges can further optimize the implementation of outdoor exploration activities, ensuring that all children have access to enriching and developmentally appropriate education.

### **Developmental Checklists**

Developmental checklists are essential tools in Early Childhood Care and Education (ECCE). They monitor and assess children's growth across various developmental domains. These checklists help educators and parents identify early signs of developmental delays, ensuring timely interventions. This literature review explores the implementation and impact of developmental checklists in ECCE centres globally and in India.

#### ***Developmental Checklists Globally***

Globally, developmental checklists have been widely adopted in ECCE settings to support early identification and intervention for developmental delays. In the United States, the Centers for Disease Control and Prevention (CDC) developed the "Learn the Signs. Act Early." program, which provides free milestone checklists for developmental surveillance during well-child visits (CDC, 2024). These checklists include milestones that 75% or more children are expected to achieve by specific ages, helping to guide developmental surveillance and clinical judgment (American Academy of Family Physicians [AAFP], 2022). The CDC's recent revisions to these checklists aim to improve their utility by clarifying when most children should reach certain milestones, thus avoiding the "wait-and-see" approach that can delay early interventions (CDC, 2024).

In Australia, the Early Years Learning Framework (EYLF) and National Quality Standard (NQS) emphasize using developmental milestones to guide educators in assessing children's play and learning. These frameworks support a comprehensive approach to monitoring children's development, ensuring that early childhood professionals can promptly identify and address developmental concerns (Australian Children's Education and Care Quality Authority [ACECQA], 2024).

#### ***Developmental Checklists in India***

Developmental checklists have been integrated into the National Early Childhood Care and Education (ECCE) Curriculum Framework in India. Under the Integrated Child Development Services (ICDS) scheme, Anganwadi Centres employ these checklists to monitor children's progress in various developmental domains, including physical, cognitive, social-emotional, and language development (NIPCCD, 2017). The framework encourages

using culturally relevant and context-specific developmental checklists, enabling educators to assess children using locally adapted tools.

Developmental checklists are tools Anganwadi workers use to systematically observe and document children's progress across various developmental domains. These checklists help monitor each child's growth, identify areas needing support, and tailor activities to meet individual needs. This practice ensures a personalized approach to education, supporting each child's unique developmental trajectory (NAEYC, 2009).

Research conducted by the National Institute of Public Cooperation and Child Development (NIPCCD) highlights the effectiveness of these checklists in Indian ECCE settings. The checklists are designed to be simple, accessible, and practical, helping Anganwadi workers and parents track children's development and identify areas needing intervention (Central Square Foundation, 2021). This approach ensures that children receive timely support, promoting better developmental outcomes.

### **Benefits and Challenges**

The benefits of using developmental checklists in ECCE are well-documented. They provide a structured approach to monitoring development, facilitate early identification of delays, and support informed decision-making regarding interventions (AAP, 2022). These tools also promote collaboration between educators and parents, fostering a shared understanding of children's developmental needs and progress (CDC, 2024).

However, challenges must be addressed in implementing developmental checklists, particularly in resource-constrained settings. Limited access to validated checklists, inadequate training for educators, and variability in assessment quality can hinder these tools' effectiveness. In India, additional challenges include the need for culturally appropriate checklists that are sensitive to the diverse contexts in which they are used (NIPCCD, 2017).

Developmental checklists are vital for monitoring and supporting children's development globally and in India in ECCE settings. Providing a systematic approach to developmental surveillance, these tools help ensure early identification of delays and timely interventions. Addressing resource limitations, training, and cultural relevance challenges can further enhance the effectiveness of developmental checklists, ensuring that all children receive the support they need for optimal development.

### **Parental Involvement**

Parental involvement is a critical factor in the success and well-being of children in Early Childhood Care and Education (ECCE). It encompasses activities ranging from home-

based support to active participation in ECCE centres. This literature review explores the impact and practices of parental involvement in ECCE globally and in India.

### ***Parental Involvement Globally***

Globally, parental involvement in ECCE has been extensively studied and recognized for its positive impact on children's developmental outcomes. In the United States, parental engagement is integral to programs like Head Start, which emphasizes the role of parents in supporting their children's education through activities such as reading at home, attending parent-teacher conferences, and volunteering in the classroom (Meloy et al., 2019). Research indicates that such involvement significantly improves children's academic readiness and social skills (Connell & Prinz, 2002).

In the United Kingdom, parental involvement is a cornerstone of effective ECCE. Programs often include workshops for parents, regular communication between parents and educators, and opportunities for parents to participate in classroom activities. These practices foster a collaborative environment where parents and educators work together to support children's learning and development (Epstein, 1995). Studies have shown that this collaborative approach enhances children's academic performance and social competence (El Nokali, Bachman, & Votruba-Drzal, 2010).

Australia has implemented similar strategies, emphasizing the importance of family engagement in early learning. The Early Years Learning Framework (EYLF) encourages practices that involve parents in the educational process, recognizing their role as the child's first and most influential teacher. Regular parent-educator meetings, family events, and home-learning activities are ways Australian ECCE centres engage parents (Fantuzzo et al., 2004).

### ***Parental Involvement in India***

In India, national policies such as the National Early Childhood Care and Education (ECCE) Policy and the Integrated Child Development Services (ICDS) scheme support parental involvement in ECCE. These policies emphasize the importance of parental participation in early childhood programs to enhance developmental outcomes (Ministry of Women and Child Development, 2015).

Research conducted by the National Institute of Public Cooperation and Child Development (NIPCCD) highlights various forms of parental involvement in Indian ECCE settings, including parent-teacher meetings, involvement in children's learning activities, and participation in community events. These activities help build a strong partnership between

parents and educators, fostering a supportive environment for children's growth (Central Square Foundation, 2021).

A study by the Central Square Foundation (2021) underscores the significance of parental involvement in enhancing the quality of ECCE. It found that active parental engagement in activities such as storytelling, educational games, and regular feedback sessions contributes to better cognitive and social-emotional development in children. Moreover, culturally relevant practices, like involving parents in traditional celebrations and festivals, help strengthen the connection between home and school, enriching the learning experience.

Parental involvement is critical for the success of ECCE programs. Anganwadi workers actively seek feedback from parents to understand children's behaviour and skills outside the AWC. This holistic view allows for better alignment between home and school environments, ensuring consistent support for children's development. Parents are encouraged to share observations and insights about their child's interests, strengths, and challenges, which are then used to tailor activities and interventions (Van Horn, Karlin, & Ramey, 2012).

### **Benefits and Challenges**

The benefits of parental involvement in ECCE are well-documented. It leads to improved academic performance, better social skills, and enhanced emotional well-being. Parents actively involved in their children's education help create a consistent learning environment beyond the classroom (Fantuzzo et al., 1995).

However, challenges remain, particularly in resource-constrained settings. In India, factors such as low literacy levels among parents, socio-economic constraints, and limited awareness about the importance of early childhood education can hinder effective parental involvement (NIPCCD, 2017). Addressing these challenges requires targeted interventions, such as parent education programs, community awareness campaigns, and policies that support parental engagement.

Parental involvement is crucial for the success of ECCE programs globally and in India. It enhances children's academic and social outcomes, fostering a supportive and collaborative learning environment. Addressing socio-economic constraints and awareness challenges can further optimise parental involvement's benefits, ensuring that all children have the support they need for holistic development.

### **Conclusion**

Innovative practices implemented by Anganwadi workers, such as play-based learning, sensory-rich activities, outdoor exploration, developmental checklists, and parental

involvement, enhance ECCE quality. However, infrastructure issues, administrative burdens, and inadequate training persist. Addressing these challenges through targeted support and policy interventions is essential for optimizing ECCE outcomes. The critical role of Anganwadi workers in fostering holistic child development underscores the need for ongoing support and resources to ensure the continued improvement of ECCE in India.

## References

- American Academy of Family Physicians. (2022). *CDC's revised developmental milestone checklists*. *Am Fam Physician*, 106(4), 370-371. Retrieved from AAFP
- Australian Children's Education and Care Quality Authority. (2024). *Developmental milestones EYLF and NQS*. Retrieved from ACECQA
- Brown, C., & Mowry, B. (2015). *Close early learning gaps with rigorous DAP*. *Phi Delta Kappan*, 96(7), 53.
- Brown, C., Feger, B., & Mowry, B. (2015). *Helping others understand academic rigor in teachers' developmentally appropriate practices*. *YC Young Children*, 70(4), 62-69.
- Centers for Disease Control and Prevention. (2024). *Learn the signs. Act early*. Retrieved from CDC
- Central Square Foundation. (2021). *Early Childhood Education in India: Promises, Policies, and Pitfalls*. Retrieved from Central Square Foundation.
- Child Development Center. (2018). *Five-Minute Sensory-Rich Activities*. Retrieved from Child Development Center.
- Cleveland Clinic. (2024). *The Benefits of Sensory Play For Your Child*. Retrieved from Cleveland Clinic.
- Connell, C. M., & Prinz, R. J. (2002). *The impact of childcare and parent-child interactions on school readiness and social skills development for low-income African American children*. *Journal of School Psychology*, 40(2), 177-193.
- Edutopia. (2022). *The Power of Play-Based Learning in Preschool and Elementary School*. Retrieved from Edutopia.
- El Nokali, N. E., Bachman, H. J., & Votruba-Drzal, E. (2010). *Parent involvement and academic and social development in elementary school*. *Child Development*, 81(3), 988-1005.
- Elliott, E., Ten Eycke, K., Chan, S., & Müller, U. (2014). *Taking kindergarteners outdoors: Documenting their explorations and assessing the impact on their ecological awareness*. *Children, Youth and Environments*, 24(2), 102-122.
- Encyclopedia on Early Childhood Development. (2018). *Play-Based Learning: Definition*. Retrieved from Child Encyclopedia.
- Epstein, J. L. (1995). *School, family, community partnerships: Caring for the children we share*. *Phi Delta Kappan*, 77(9), 701-712.
- Fantuzzo, J., McWayne, C., Perry, M. A., & Childs, S. (2004). *Multiple dimensions of family involvement and their relations to behavioral and learning competencies for urban, low-income children*. *School Psychology Review*, 33, 467-480.
- Fiennes, C., Oliver, E., Dickson, K., Escobar, D., Romans, A., & Oliver, S. (2015). *The existing evidence base about the effectiveness of outdoor learning*. London: Giving Evidence and the Social Science Research Unit (SSRU), UCL Institute of Education, University College London. Retrieved from Outdoor Learning.
- Fulton, J., & Myers, B. (2014). *Your children, my children. Dilemmas in why not our children? Early childhood teacher education*. *Childhood Education*, 90(1), 3-10.

- Goldstein, L. (2008). *Teaching the standards is developmentally appropriate practice: Strategies for incorporating the sociopolitical dimension of DAP in early childhood teaching*. *Early Childhood Education Journal*, 36, 253-260.
- Child Care Renovation. (2024). *Create a Sensory-Rich Environment With 7 Expert Ways*. Retrieved from Child Care Renovation.
- Jambunathan, S., Burts, D., & Pierce, S. (1999). *Developmentally appropriate practice as predictors of self-competence among preschoolers*. *Journal of Research in Childhood Education*, 13(2), 167-174.
- Lettington, M. (2018). *Developmentally appropriate practices in the early childhood classroom*. Northwestern College. Retrieved from NWCommons
- Lloyd, A., Truong, S., & Gray, T. (2018). *Take the class outside! A call for place-based outdoor learning in the Australian primary school curriculum*. *Curriculum Perspectives*, 38, 163–167.
- Meloy, B., Gardner, M., Wechsler, M., & Kirp, D. (2019). *What can we learn from state-of-the-art early childhood education programs? In Sustaining early childhood learning gains: Program, school, and family influences (pp. 101–132)*. Cambridge: Cambridge University Press.
- Ministry of Women and Child Development. (2015). *Integrated Child Development Services (ICDS) Scheme*. Retrieved from MWCD
- National Association for the Education of Young Children (NAEYC). (2009). *Developmentally appropriate practice in early childhood programs serving children from birth through age 8*. Retrieved from NAEYC
- National Institute of Public Cooperation and Child Development. (2017). *National Early Childhood Care and Education (ECCE) curriculum framework*. Retrieved from NIPCCD
- SplashLearn. (2024). *24 Best Sensory Activities for Preschoolers in 2024*. Retrieved from SplashLearn.
- The Australian Educational Researcher. (2022). *Intentionality and the Active Decision-Making Process in Play-Based Learning*. Retrieved from Springer.
- The Education Hub. (2024). *Outdoor learning environments in early childhood education*. Retrieved from The Education Hub.
- Van Horn, M., Karlin, E., & Ramey, S. (2012). *Effects of developmentally appropriate practices on social skills and problem behaviors in first through third grades*. *Journal of Research in Childhood Education*, 26, 18-39.