

NATURE-BASED PLAY

IN EARLY CHILDHOOD
EDUCATION

Understanding the Developmental Benefits
of Nature-Based Play

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INTRODUCTION TO NATURE PLAY

Nature play is a vital cornerstone of a child's early years, acting as a "leading line" for their entire development⁶. Despite its clear benefits, many children today are becoming increasingly disconnected from the natural world due to the rise of digital entertainment, urban expansion, and a growing culture of risk-aversion among caregivers².

Stepping outside is far more than a break from the classroom; it is the primary environment where children acquire fundamental motor skills and establish the physical activity habits necessary for lifelong health¹.

In the unstructured setting of the outdoors, children cultivate high-level cognitive abilities—such as abstract thinking, imagination, and complex problem-solving—while gaining the mental clarity required to focus².

Furthermore, nature serves as a critical social arena where children learn to regulate their emotions, build resilience, and develop empathy through peer interaction and "risky play," which teaches them how to safely assess their own physical boundaries². Ultimately, fostering a deep connection with nature is not just a luxury; it is a necessity for establishing the personality, social character, and well-being that children carry into adulthood⁶.



MY PASSION

I was driven by the global decline in children's outdoor play, a trend caused by a rise in screen time and a culture that has become increasingly risk-averse. As an Early Childhood Educator, I have witnessed firsthand how children thrive when they socialize, collaborate, and create in natural settings. I am personally passionate about nature-based learning and believe it should be promoted worldwide because of its evident benefits for mental, physical, and emotional well-being. My perspective is shaped by my experience in traditional settings, where I have observed how meaningful outdoor play can foster empathy and self-regulation. I believe that the outdoors is far more than just a place for children to "drain their energy"; it is a dynamic space that offers unique "affordances", opportunities for action that are essential for holistic growth.

ABOUT MY STUDY

What I Conducted:

This study was a rapid review, which examined peer-reviewed research published between 2015 and 2025, focusing on children from infancy through 12 years of age. I integrated both numerical and descriptive findings to better understand how nature play influences four key areas: physical, cognitive, social, and emotional development. My research specifically explored the benefits of nature-based settings, such as forest preschools, and compared them to traditional early childhood environments.

Why I Conducted This Research:

The primary goal was to explore how outdoor play supports a child's holistic development globally. By clarifying how nature play fosters complex skills such as collaboration and risk assessment, my study aimed to help educators and policymakers create better environments for our children.

NATURE-BASED VS CONVENTIONAL SCHOOL

The main difference between nature schools and regular schools is the learning environment; while regular schools primarily function within buildings, nature schools move the entire educational process into open, natural spaces like forests, fields, or parks¹. Children attending nature schools spend a significantly larger portion of their day outdoors—often nearly the entire program duration—whereas regular programs typically restrict outdoor access to specific, shorter playground periods². While regular schools often rely on manufactured surfaces like asphalt, rubber, and indoor carpets, nature schools utilize natural elements such as grass, dirt, and the forest floor as their primary landscape¹.

WHY NATURE PLAY MATTERS

Nature play supports multiple areas of development:

Physical Development

- Builds strength, coordination, and balance⁴.
- Encourages active movement and healthy habits¹.

Cognitive Development

- Promotes problem-solving and creativity².
- Encourages exploration and inquiry⁷.

Social & Emotional Development

- Supports cooperation and teamwork⁵.
- Builds confidence and independence².

Mental Health & Well-being

- Reduces stress and supports emotional regulation⁵.
- Encourages joy, curiosity, and engagement¹.

THE ROLE OF THE EDUCATOR

Risk Manager and Co-Assessor



Educators balance safety with opportunities for growth through risk¹.

- Continuously observe and assess risk in the environment¹.
- Involve children in joint risk assessment, helping them learn to manage challenges¹.
- Support safe risk-taking to build confidence and independence⁷.
- Use professional judgment when balancing developmental needs with safety regulations⁷.

Facilitator and Scaffolder of Play

Educators act as guides who support children's learning through play⁵.

- Offer guidance as a knowledgeable adult, supporting children in building on their existing knowledge to reach a deeper understanding⁵.
- Use a child-centred approach, recognizing play as essential to development⁵.
- Encourage exploration and inquiry rather than focusing only on academic skills⁶.
- Adapt practices to be contextually responsive, valuing culture, environment, and children's experiences⁶.



Structured Instructor of Motor Skills

Educators must intentionally support physical development⁴.

- Provide purposeful instruction for gross and fine motor skills⁴.
- Model and guide movements (e.g., balance, coordination)⁸.
- Actively engage with children during outdoor play rather than taking a passive role⁸.
- Create opportunities for skill-building through play⁸.

TYPES OF OUTDOOR PLAY

01 FREE PLAY



- Child-led Exploration
- Examples: Running, Climbing, Imaginative Play

STRUCTURED ACTIVITIES 02

- Educator-Guided
- Examples: Scavenger Hunts, Group games



03 NATURE-BASED PLAY



- Interaction with Natural Materials
- Examples: Sticks, Rocks, Water, Mud

RISKY PLAY 04

- Age-appropriate challenges
- Examples: climbing, balancing, jumping





INCLUSION IN OUTDOOR PLAY

Inclusive outdoor play ensures that every child, regardless of ability or cultural background, can thrive in a natural environment¹. Outdoor learning is often more inclusive than traditional classrooms, engaging disadvantaged students and improving focus, behaviour, and self-esteem for children with ADHD or other learning disabilities². It also promotes social inclusion for children from immigrant backgrounds and supports overall well-being through accessible, nature-based play spaces^{1;2}.

OUTDOOR PLAY IDEAS



INFANTS

- Water Play Bin
- Bubble Play
- Window Painting

TODDLERS

- Mud Kitchen
- Sidewalk Chalk
- Nature Soup



PRESCHOOLERS

- Gardening
- Nature Collage
- Insect Collection

SCHOOL AGE

- Rock Painting
- Nature Scavenger Hunt
- Leaf Mandalas



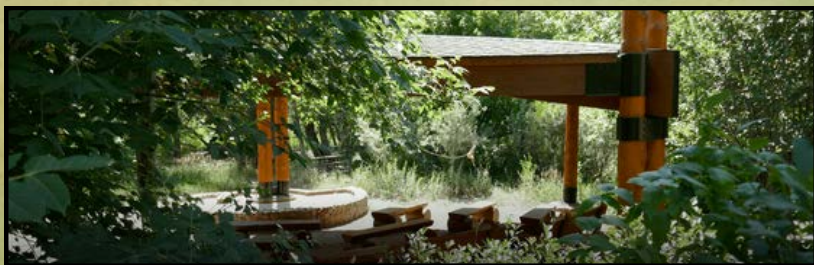
ARE CHILDREN IN NATURE-BASED SCHOOLS AT A DISADVANTAGE?

Children in nature-based schools are not at a disadvantage and often experience unique developmental benefits beyond those of traditional settings¹. Outdoor-focused programs report fewer minor injuries, as children learn to assess and manage risks effectively¹. Natural environments, such as grass and forest floors, provide safer spaces for active play compared to hard, artificial surfaces¹. Students in these settings often demonstrate better concentration and stronger academic performance². Nature-based learning is especially supportive for children with ADHD or learning disabilities by offering more freedom and engagement². Overall, these programs promote physical health, social development, and emotional well-being, creating a balanced and holistic educational experience².

FAMILY ENGAGEMENT

Practical Ways Families Can Help:

- **Encourage Purposeful Movement:** Don't assume motor skills develop on their own; provide guided opportunities for your child to practice throwing, jumping, and balancing⁴.
- **Create Home-School Linkages:** Talk to your child's teachers about the traditional games you play at home so they can be integrated into the school day⁵.
- **Prioritize Activity Over Academics:** While reading and writing are vital, the early years are the ideal window for physical play, which sets the foundation for emotional stability and mental clarity⁶.



CONCLUSION

I intend to prioritize outdoor time as a stay-at-home mother because I understand that nature-based play serves as the primary driver for my children's overall development during these early years. By exploring natural environments together, I can provide the intentional guidance they need to master physical skills and establish healthy habits that will last a lifetime⁸.



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