

Promoting Play and Learning

What is Play? (Structured or Unstructured, activity driven by curiosity and enjoyment, typically child-led)

Learning is energy exhaustive.

Playing is energy rejuvenating; allows your child to enter the state of "flow."

Play is absolutely essential for a toddler's psychological development! It's not just fun and games; it's their primary way of learning and making sense of the world around them.

Play has an important and critical role in children's brain development, as well as their social-emotional and cognitive development.

- Have you ever watched your child completely engrossed in building a tower out of blocks, only to have it come crashing down? While it might be frustrating for them in the moment, that seemingly simple act of play is actually incredibly important for their development!
 - **Problem-solving and planning:** As the child builds, they're constantly evaluating the stability of the tower and figuring out how to add more blocks without it falling. This process strengthens their problem-solving skills and critical thinking.
 - **Spatial reasoning and fine motor skills:** Stacking blocks requires precise hand-eye coordination and spatial awareness. They need to judge the size and placement of each block to build upwards.
 - **Cause and effect:** When the tower inevitably falls, the child learns about cause and effect. They can then adjust their approach and try building differently next time.
 - **Persistence and resilience:** Building a tall tower takes time and effort. When it falls, the child may feel frustrated, but they also learn the value of persistence and trying again.
 - **Creativity and imagination:** Building a tower isn't just about stacking blocks. It can be a spaceship, a castle, or anything their imagination conjures. This type of open-ended play fosters creativity and allows them to express themselves.

Why is play important?

Ability to suspend gratification is the best predictor of long term success.

- **The Marshmallow Experiment:** One of the most famous studies associated with delayed gratification is the Stanford marshmallow experiment conducted by Walter Mischel in

the 1960s. This experiment followed children who were given the choice between eating one marshmallow immediately or waiting for a short period to receive two marshmallows. While not definitively stating it as the "best" predictor, the study did find a correlation between the ability to delay gratification (waiting for the two marshmallows) and positive outcomes later in life, such as higher SAT scores and better ability to cope with stress.

Play provides a safe and engaging environment for children to practice the skills needed to delay gratification. They learn to plan, persist through challenges, manage emotions, and ultimately achieve their goals.

Through games and playful activities, children can practice and strengthen important executive function skills that will help them throughout their lives, including learning to focus their attention, strengthening their working memory, and developing basic self-control.

Requires toddlers to focus and sustain their attention on a goal, inhibit unnecessary and ineffective actions, and try things in new ways if a first attempt fails

Evidence from Psychology and Neuroscience:

- **Play and Intrinsic Motivation:** Studies by psychologists like Peter Gray and Diane Twenge show that play fosters intrinsic motivation, the natural desire to learn and explore. When children are forced to learn through rigid structures and testing, they may lose this intrinsic motivation and become focused on extrinsic rewards (grades, praise).
- **Play and Brain Development:** Neuroscience research highlights the importance of play for brain development. Play stimulates the growth of new neural connections and strengthens existing ones, crucial for learning, memory, and cognitive function. Highly structured environments may limit these opportunities for exploration and growth.
- **Executive Functioning Skills:** Play helps develop executive function skills like planning, decision-making, and self-control. These skills are crucial for success in school and later life.
- **Emotional Development and Processing:** Play provides a platform for toddlers to process and understand their emotions. They can act out scenarios, express themselves creatively, and learn to regulate their feelings.
- **Stress Regulation:** Play can help toddlers learn to manage stress and cope with difficult emotions. This is because play allows them to experiment and explore in a safe environment.

Evidence from Educational Research:

- **Studies on Finland's Education System:** Finland consistently ranks high in international student assessments despite having a play-based curriculum in early childhood education. This suggests that play and exploration can lead to strong academic outcomes.
- **Studies on the Negative Impacts of High-Stakes Testing:** Research by Linda Darling-Hammond and others suggests that high-stakes testing can narrow the curriculum, increase teacher stress, and pressure students to memorize facts rather than develop critical thinking skills. This can create an environment that discourages curiosity and exploration.

Studies have shown that children who engage in more play tend to have:

- **Stronger cognitive skills** (learn about cause and effect, spatial relationships, and categorization.)
- **Better social skills**
- **Improved emotional regulation**
- **Enhanced creativity**

Stress regulation and coping with difficult emotions

Play as a Safe Space for Exploration:

- Play provides a **safe and controlled environment** for toddlers to experiment with different emotions and situations. They can act out scenarios, pretend to be different characters, and explore how different emotions feel in their bodies.

Practice Makes Progress:

- Through play, toddlers can **practice** managing difficult emotions in a **low-stakes environment**. Imagine a toddler playing doctor with their stuffed animal. They might pretend to give the animal a shot (representing a doctor visit they might be anxious about) and explore their own feelings of fear or discomfort in a safe way.

Release and Expression:

- Play allows for healthy **emotional release**. A frustrated toddler might knock over blocks during play, expressing their frustration in a safe and acceptable way. This can help them learn to manage their emotions in a healthy manner.

Developing Coping Mechanisms:

- Play can help toddlers develop **coping mechanisms** for dealing with stress. For example, a child might sing a song or hug a stuffed animal to self-soothe during pretend play, practicing self-calming techniques.

Building Resilience:

- When toddlers experience challenges or setbacks during play (like a tower falling), they learn **resilience**. They can try again, problem-solve, and develop a sense of mastery, which helps them cope with future frustrations.

Toxic stress weakens the architecture of the developing brain, which can lead to lifelong problems in learning, behavior, and physical and mental health. Experiencing stress is an important part of healthy development. Activation of the stress response produces a wide range of physiological reactions that prepare the body to deal with threat. However, when these responses remain activated at high levels for significant periods of time, without supportive relationships to help calm them, [toxic stress](#) results. This can impair the development of neural connections, especially in the areas of the brain dedicated to higher-order skills.

From <<https://developingchild.harvard.edu/science/key-concepts/brain-architecture/>>

Negative Side Effects of Limited Play in Toddlers (2-4 years old)

There are several negative side effects associated with not allowing toddlers enough time for play. These effects can impact a child's development in various areas:

- **Cognitive Development:** Play is crucial for cognitive skills like problem-solving, critical thinking, creativity, and imagination. **Limited play can hinder a child's ability to learn and explore new concepts.**
- **Social and Emotional Development:** Play is how toddlers learn to interact with others, share, communicate, and manage emotions. Without adequate playtime, they **may struggle with social skills, experience anxiety, or have difficulty expressing themselves.**
- **Physical Development:** Active play is essential for developing gross motor skills (coordination, balance) and fine motor skills (hand-eye coordination, dexterity). **Limited play can impact a child's physical growth and coordination.**
- **Language Development:** Play provides opportunities for toddlers to experiment with language, ask questions, and engage in conversations. **Restricted play can delay language development and limit their ability to express themselves verbally.**
- **Attention and Focus:** Play helps toddlers develop their attention span and ability to focus. **Without enough playtime, they may struggle to concentrate on tasks or become easily distracted.**

Types of Play and Developmental Benefits:

- **Open-ended play:** Building with blocks, pretend play, using dolls and figurines, playing in the dirt, etc. This type of play fosters creativity, problem-solving skills, and imagination.
- **Sensory play:** Playing with playdough, water, sand, exploring textures and sounds. Sensory play supports development of fine motor skills, sensory processing, and exploration of the world through touch.
- **Active play:** Running, jumping, climbing, riding bikes, etc. Active play helps with gross motor skills development, coordination, and overall physical health.
- **Social play (develops from 2-4 years old):**
 - **Parallel play:** Playing alongside other children, but not necessarily interacting. This is common in 2-year-olds and helps them learn social skills by observing others.
 - **Cooperative play:** Working together towards a common goal, taking turns and sharing. This emerges around age 3 and strengthens collaboration and communication skills.
 - **Competitive play:** Introduced in a fun way around age 3 with a focus on participation and sportsmanship (e.g., turn-taking, encouragement). This can teach children about winning and losing in a healthy manner.

Age-Specific Considerations:

- 2-year-olds: Play is often solitary, parallel, or exploratory. Focus on providing opportunities for exploration and experimentation.
- 3-4 year-olds: Social play becomes more prominent with cooperative play emerging. Introduce simple games and activities that encourage turn-taking and collaboration.

The Role of the Parent: Fostering Playful Learning

- Following your child's lead and providing a safe and stimulating environment.
- Become a playmate: Get down on the floor and play with your child!
- Narrate and Ask Questions: Talk about what you're doing while playing, and ask open-ended questions to encourage their thinking and creativity.
- Provide Playful Materials: Offer a variety of open-ended toys, art supplies, dress-up clothes, household items that are safe for play, etc.
- Parents can **support** their toddler's emotional development through play by:
 - Narrating their child's emotions during play ("It looks like the baby doll is feeling sad because you took away her blanket").
 - Offering words of encouragement and comfort ("I know you're feeling frustrated, but we can try building the tower again together").

- Using play to model healthy coping mechanisms ("Let's take a deep breath together and see if we can build a stronger tower").

Importance of Play for Social Development

Play is a fantastic training ground for toddlers to learn about social structures and hierarchies.

Social Hierarchy Through Play:

- **Dominant and Submissive Roles:** Pretend play is a prime example. Toddlers might assign roles like "doctor" and "patient," firefighter" and "victim," or "parent" and "child." These roles often reflect a social hierarchy, with the doctor or parent taking a more authoritative position.
- **Negotiating Power Dynamics:** During pretend play, toddlers negotiate who gets to be what role and how the scenario unfolds. This play helps them understand power dynamics and how to navigate social situations.
- **Following Rules and Taking Turns:** Many games, even simple ones like tag or board games for young children, involve rules and taking turns. Through play, toddlers learn to respect rules, accept limitations, and understand the concept of hierarchy within the game structure (e.g., following the leader in a game).

Social Structures Through Play:

- **Family Dynamics:** Play allows toddlers to explore and understand family structures. They might mimic how they see parents interact, play pretend "house," or create scenarios reflecting their own family dynamic.
- **Community Roles:** Through pretend play involving doctors, firefighters, teachers, or shopkeepers, toddlers begin to grasp the concept of different roles within a community and how they interact.
- **Understanding Fairness and Cooperation:** Games with rules often involve elements of fairness and cooperation. Toddlers learn that following rules and cooperating with others leads to a more enjoyable play experience for everyone.

It's important to note that:

- A toddler's understanding of social structures and hierarchies is still developing. Their play might not always perfectly reflect real-world dynamics.
- Parents can use play as a tool to gently guide their child's understanding. For example, you can discuss fairness during games or encourage them to share the "leader" role in pretend play.

By observing and engaging in their play, you can gain valuable insights into your toddler's social understanding and gently guide their development as they navigate the complexities of social structures and hierarchies.

Here's how play benefits toddlers in different settings:

Play Alone (Independent Play):

- **Creativity and Imagination:** Solo play allows toddlers to explore their own ideas and create their own worlds. They can be anything they want to be and experiment with different scenarios.
- **Problem-solving:** Building with blocks, sorting toys, or figuring out puzzles all require problem-solving skills that develop through independent play.
- **Focus and Concentration:** When engrossed in solitary play, toddlers are improving their ability to focus and concentrate, which will benefit them in future learning activities.

Play with Friends (Social Play):

- **Social Skills:** This is where toddlers learn to interact with others, take turns, share, and negotiate. They develop empathy and learn how to resolve conflicts.
- **Communication Skills:** Through play with friends, toddlers practice verbal and nonverbal communication. They learn to express themselves and understand others.
- **Cooperation:** Playing together requires cooperation and teamwork. Toddlers learn to work towards a common goal and build friendships.

Play with Parents (Parent-Child Play):

- **Bonding and Attachment:** Playing together strengthens the bond between parent and child. It creates positive memories and fosters a sense of security and trust.
- **Language Development:** Parents can engage toddlers in conversation during play, expanding their vocabulary and communication skills.
- **Emotional Regulation:** Parents can model appropriate emotional responses during play, helping toddlers learn to manage their own feelings.

Resources

- https://harvardcenter.wpenginpowered.com/wp-content/uploads/2022/12/6-Games-to-Play-with-Toddlers_2-3_years.pdf
- <https://harvardcenter.wpenginpowered.com/wp-content/uploads/2022/12/5-Games-Activities-for-Children-4-7-years.pdf>
- <https://harvardcenter.wpenginpowered.com/wp-content/uploads/2015/05/Executive-Function-Activities-for-18-to-36-month-olds.pdf>

- <https://harvardcenter.wpenginpowered.com/wp-content/uploads/2015/05/Executive-Function-Activities-for-3-to-5-year-olds.pdf>
- <https://developingchild.harvard.edu/resources/brainbuildingthroughplay/>