



**A SUMMARY**

The LEGO Foundation

# THE ROLE OF PLAY IN CHILDREN'S DEVELOPMENT

A review of the evidence



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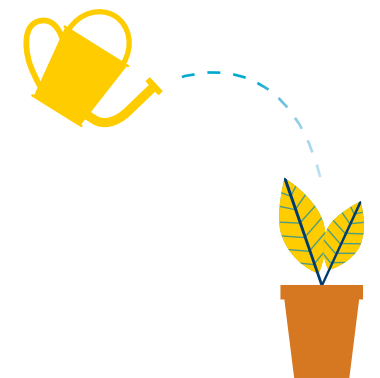
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This summary of our white paper explains specific types of play and presents the respective mechanisms in playful behaviour which might enhance learning.

## Introduction

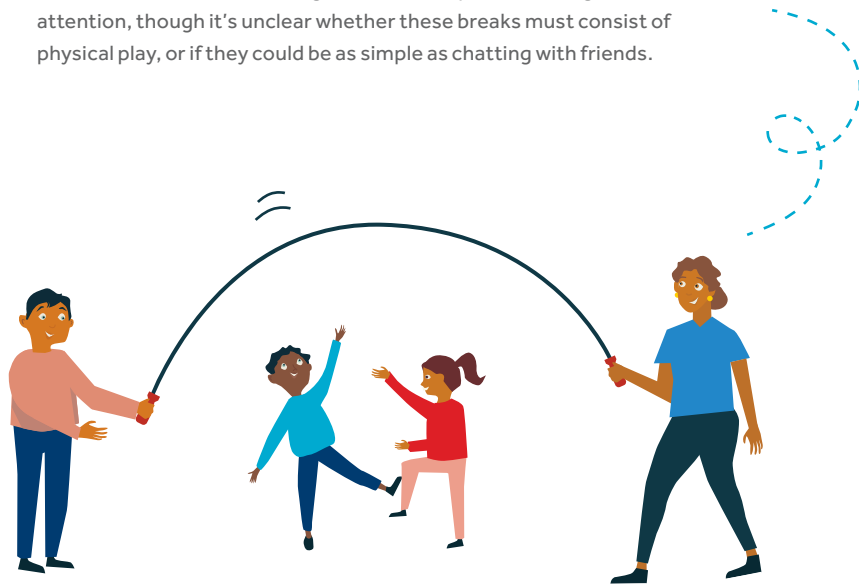
A variety of evidence across a number of disciplines, suggests the importance of play in supporting and encouraging healthy human development. From evolutionary and developmental psychology to anthropology and educational studies, a range of learnings exist in relation to each of these five specific types of play.



# The types of play

## Physical play

- This includes activity play (e.g. jumping, climbing, dancing, skipping, bike riding and ball play), fine-motor practice (e.g. sewing, colouring, cutting, junk modelling and manipulating action toys and construction toys) and 'rough-and-tumble' play (pretend fighting with peers).
- Physically active play provides children with exercise and is also linked with academic progress, self-regulation and social competence.
- There is some evidence that, at least for boys, rough-and-tumble play helps them develop their social skills and emotional awareness and could positively affect their academic progress.
- Unstructured breaks from cognitive tasks improve learning and attention, though it's unclear whether these breaks must consist of physical play, or if they could be as simple as chatting with friends.



## Play with objects

- This begins early, with behaviours such as mouthing/biting, rotating while looking, hitting and dropping. It progresses to arranging objects as toddlers and then develops into sorting and classifying until, around the age of 4 years, children are building, making and constructing larger objects.
- Certain studies link play with objects with the development of representational abilities (e.g. a banana becoming a telephone), reasoning and problem-solving strategies.
- Some studies have provided evidence of links between play with objects and the development of language, maths and spatial and fine motor skills.



## Symbolic play

- This type of play begins when children first start communicating and progresses to include spoken language, mark making, numbers and music.
- There's good evidence that language play enhances children's language development. Language in itself has relationships with other important skills and goals, including self-regulation and academic achievement.
- Some research indicates that musical play could aid the development of communication skills and that it is related to higher cognitive functioning.

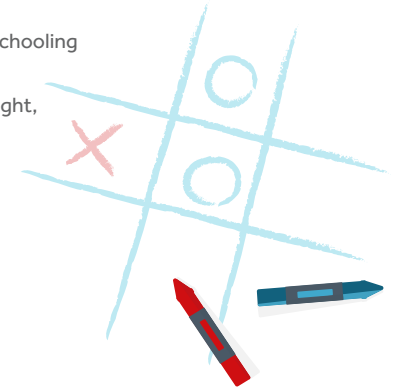
## Pretend play

- Pretend play, such as the classic games of make-believe, is the most researched type of play.
- While it's proven to be one way of developing children's reasoning skills, there are other ways of achieving the same result that are just as effective.
- A recent study suggests that pretend play may have an impact on social development. It could also be a way of developing children's awareness of others' minds.
- It's possible that pretend play could be crucial to the development of language, narrative skills and emotion regulation but more research is needed.
- There's good evidence that pretend play, particularly that which is fantasy-orientated, may enhance learning-to-learn skills.



## Game with rules

- These include physical games, such as chasing games, hide-and-seek, throwing and catching, and, as children grow up, electronic and computer games as well as the whole range of more organised sporting activities.
- Board games (especially those involving numbers) help improve numeracy.
- Physical games with rules help children adapt to formal schooling – this is especially true for boys.
- Games with rules may act as a substitute for adult oversight, enhancing children's freedom and agency.



## Closing thoughts

There is a substantial body of research arguing for the importance of play in human development. The majority of findings relate to learning outcomes in specific domains, rather than domain general learning-to-learn skills. In order to make even stronger conclusions about the importance of learning through play, more studies comparing play to other learning contexts are needed.

- Specific research studies on children's development
- Suggestions for future research
  - Relationships between the research on the five types of play and the five characteristics of playful experiences

**For more information see our full white paper** 'The Role of Play in Children's Development: A Review of the Evidence'



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