



“Language, play, cognition, pragmatics:  
It’s all related”

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Relevant financial relationship(s), relevant nonfinancial relationship(s)

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MED-EL

Description of financial relationship: employee

# Learning Objectives

## Participants will be able to:

- describe how language, play, cognition, and pragmatics are related.
- list play, cognition, and pragmatic milestones for children ages 0 to 3.
- identify developmental milestone resources.
- describe a play activity that facilitates cognitive, pragmatic, auditory, speech, and language skills.

## Play-why?

Contributes to:

- Physical development
- Social development
- Emotional development
- Cognitive/intellectual
- Communication development

Fun



## Play-why?

“the work of children”

through play that children learn how to interact in their environment, discover their interests, and acquire cognitive, motor, speech, language, and social-emotional skills

(American Academy of Pediatrics, 2007)



## Play-why?

- Play has a crucial role in the optimal growth, learning, and development of children from infancy through adolescence
- Play is dynamic-develops and becomes increasingly complex; children are naturally curious and play is a natural facilitator for learning and development across domains (Christie, 2001)



## Language

Play stimulates vocabulary and concept building

- Children aged 1 ½ - 2 ½ provided with play bricks had significantly higher language scores six months later, compared with control group who did not play with the bricks (Christakis, 2007)



## Language

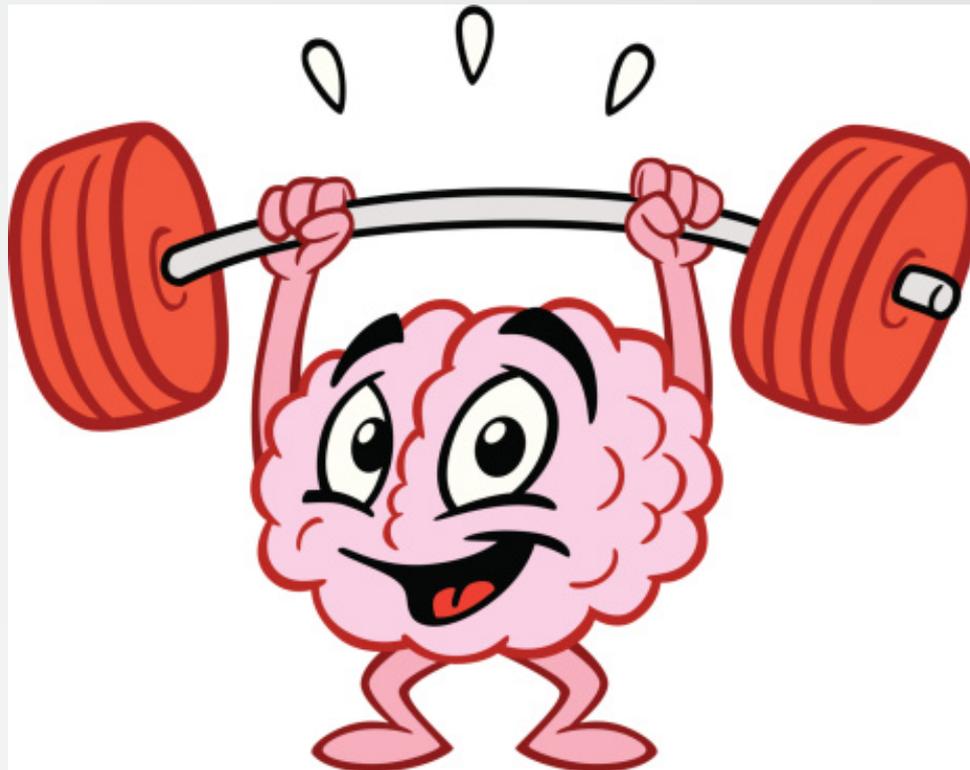
Play stimulates vocabulary and concept building

- Children's early exposure to and in pretend play in related when they reach kindergarten (2007)



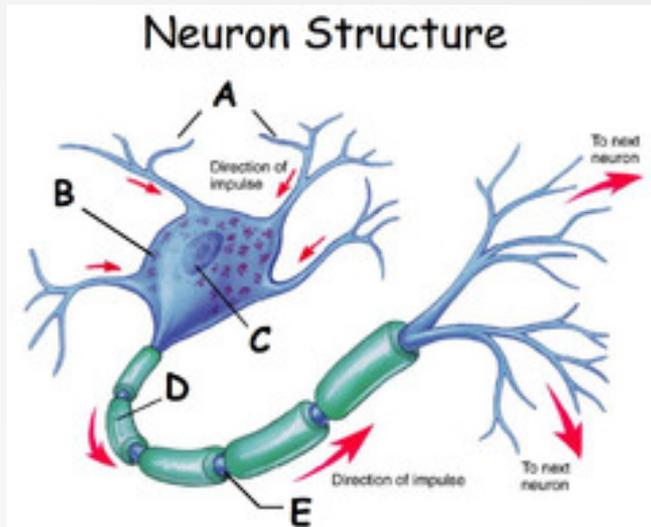
## Cognition

- Active brains make permanent neurological connections critical to learning; inactive brains do not



# Cognition

- Research on the brain demonstrates that play is a
  - scaffold for development,
  - a vehicle for increasing neural structures, and
  - a means by which all children practice skills they will need in later life. (Jensen, 2000, 2001)



## Cognition

- active play fosters personal meaning: when children perceive events as personally relevant, their neural connections proliferate and situations, ideas, and skills become part of their long-term memory. Meaningless concepts, such as isolated facts, are irrelevant and typically will not become part of long-term memory  
(Fromberg, 2002)



# Pragmatics

Social communication consists of four aspects:

- social cognition
- social interaction
- expressive and receptive processing
- verbal and nonverbal

(Adams, 2005)



## Pragmatics

- Sociable behavior appears to be related to level of language ability in children with language impairment  
(Hart et al., 2004)
- Severe delays have been shown in the development of Theory of Mind in children who are deaf  
(Peterson, 2009)
  - Correlation between language level and understanding false beliefs that is due to diminished exposure to interactive conversations from a young age

## Pragmatics

Play with others gives children the opportunity to:

- copy others behavior
- take into account viewpoints that differ from their own

Through play children  
social skills



learn

# MILESTONES



## Types/Stages of Play

**Mildred Parton**, 1933, looked at children between ages 2 – 5 and observed 6 types:

1. Unoccupied play: child is relatively stationary and appears to be performing random movements without purpose (infrequent)
2. Solitary play: child engrossed in playing and doesn't notice other children (most often seen between ages 0 – 2)
3. Onlooker/Spectator play: child takes interest in other children's play but doesn't join in, primarily watches (2 – 2 ½ years)

## Types/Stages of Play

4. Parallel play: child mimics other children's play but doesn't actively engage with them (2 ½ - 3 years)
5. Associative play: shows more interest in others rather than the toys; first category that involves strong social interaction (3 – 4 years)
6. Cooperative play: organization enters the children's play (ie: play has a goal, rules, children act at group) (4 – 6 years)

## Play Milestones

- Begin to use some toys appropriately around 9 – 12 months
- Interacting with peers begins around 2 ½ years
- Cooperative play begins around 3 to 3 ½ years; begins to share
- Play has a sequence of events around 3 – 4 years
- Prefer to play in small group emerges around 3 ½ - 4 years
- By 4 – 5 has good imaginative pretend play
- By 5 – 6 years able to play games with rules

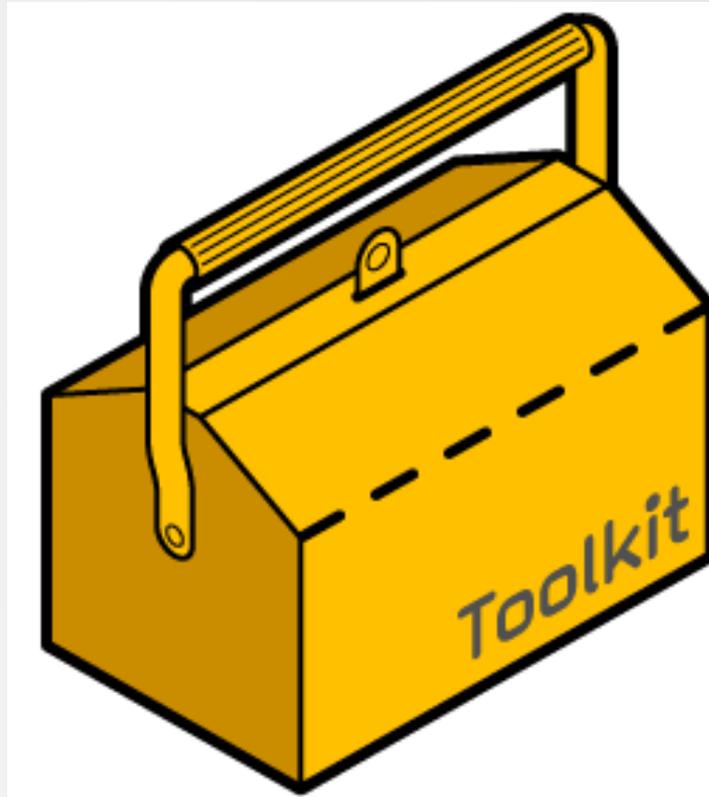
## Cognitive Milestones

- 9 – 12 months: searches for object removed from view
- 12 – 15 months: hands toy to adult to make it go
- 21 – 24 months: matches shapes (e.g., circle, square)
- 30 – 36 months: point to bigger of two objects
- 36 – 42 months: groups objects by simple categories (e.g., animals, vehicles)
- 48 – 54 months: places three pictures in a sequence to tell a story

## Pragmatic Milestones

- 3 – 6 months: fixes gaze on a person's face
- 9 – 12 months: indicates displeasure or resists removal of desired objects
- 15 – 18 months: shows affection towards doll or stuffed animal (e.g., hunger)
- 24 – 30 months: prefers interacting with others than being alone
- 36 – 48 months: recognizes when listener has not understood and will repeat message
- 48 – 54 months: begins to develop a sense of fairness

# RESOURCES



# Developmental Resources

- A Child's Journey: Developmental Milestones
  - Birth to 6 Years

[www.medel-bridge.com](http://www.medel-bridge.com) (coming soon)
- Ages & Stages Questionnaire<sup>®</sup>, Third Edition (ASQ-3<sup>™</sup>)
  - Birth to 7.11

[www.brookespublishing.com](http://www.brookespublishing.com)
- Battelle Developmental Inventory, Second Edition Normative Update (BDI-2 NU)
  - 2 to 60 months

[www.hmhco.com](http://www.hmhco.com)

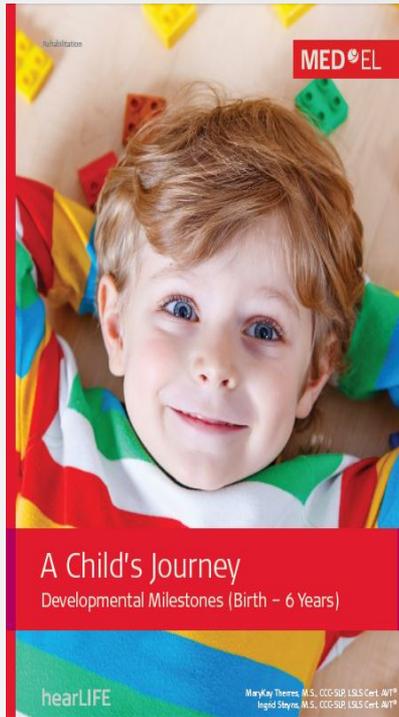
# Developmental Resources

- BRIGANCE Early Childhood Screens III
  - 0–35 months, 3–5 years, K & 1

[www.curriculumassociates.com](http://www.curriculumassociates.com)
- Child Development Inventory (CDI)
  - 15 months to 6 years

[www.childdevrev.com](http://www.childdevrev.com)
- HELP charts: Hawaii Early Learning Profile
  - Birth to 3

[www.vort.com](http://www.vort.com)



# A Child's Journey Developmental Milestones (Birth – 6 Years)

**Pediatrics**

## Purpose

- Monitor acquisition of skills necessary for communication and learning
- Provide information about current levels of functioning and progress
- Identify areas of concern
- Select appropriate goals
- Aid in counseling

## 8 Domains

Audition

Receptive Language

Expressive Language

Speech Articulation

Play

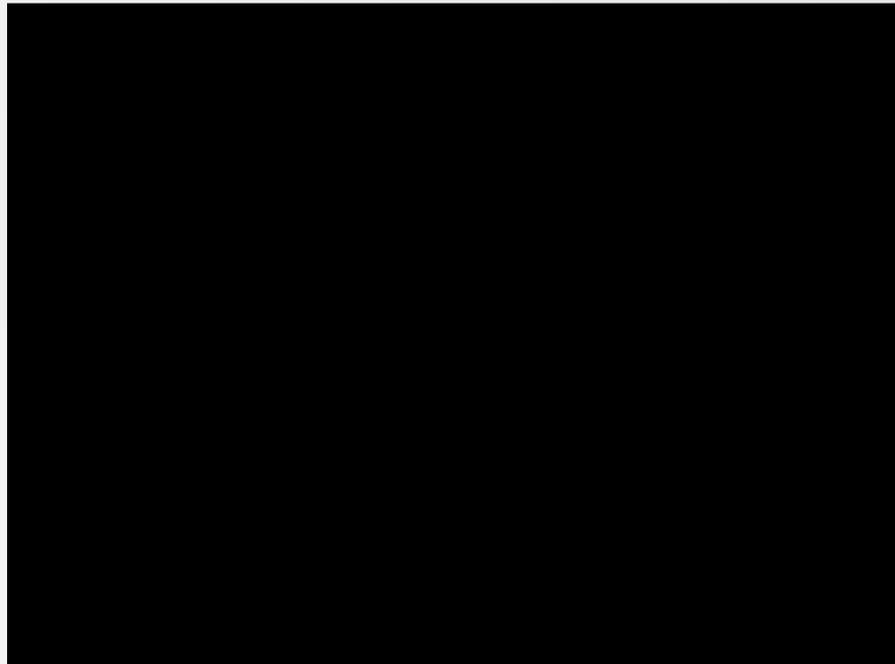
Cognition

Pragmatics

Literacy

# Video

- Mark play skills observed
- Determine child's level of play skills



# Nicholas 14 months

## 12 – 15 months

- Builds a tower of two blocks
- Pulls a pull toy
- Puts round block in correct hole of a shape sorter
- Uses two toys in simple play

## 15 – 18 months

- Puts a square block in correct hole of a shape sorter
- Demonstrates association between objects



Integrating all goals into  
play activity

# Goals for 28 monther

Play: makes 'dolls' interact

Cognition: identifies missing object when 1 of 3 is removed

Pragmatics: recognizes others may like and want something even if he/she does not (ToM)

Receptive: answers simple "where" questions

Expressive: produces pronouns "my", "me", "mine", "you"

Articulation: produces consonants /p, m, h, n, w, b/  
consistently

Auditory: identifies series of two words



12/27/2011



# Goals for 11 monther

Play: shows curiosity and exploration of objects

Cognition: understands relationship between simple actions

Pragmatics: looks at objects caregiver looks at “joint attention”

Receptive: understands some specific verbal words or phrases

Expressive: imitates communication gestures that can see themselves perform (e.g., finger play that goes along with a song)

Articulation: imitates non-speech sounds

Auditory: looks at person saying child’s name



12/27/2011

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# Thank You