Know It When you See It:
Understanding Typical and Atypical Child Development

Julie Jones-Branch, Ph.D.

Child Development Stages and Ages

Infancy: 0-18 months
Toddler: 18 months - 3 years
Preschool: 3 - 5 years

Child Development Domains

Cognitive
Physical
Language/Literacy
Social/Emotional
Cognitive—Brain Development

BRAIN FUNCTIONS

Frontal lobe
- movement
- reasoning
- memory
- personality
- planning

Parietal lobe
- intelligence
- sensation
- hearing
- vision
- language

Temporal lobe
- speech
- behavior
- memory
- hearing
- vision
- emotion

Occipital lobe
- vision
- balance
- coordination
- fine-muscle control

Brain stem
- breathing
- blood pressure
- heartbeat
- sneezing

Synapses strengthen through exposure to repeated, meaningful experiences

Critical Periods and Pruning

Newborn  1 Month  9 Months  2 Years  Adult
Stages of Cognitive Development

Piaget

Sensorimotor—8-2 years

Pre-Operational—2-7 years

Concrete Operations—7-11 years

Formal Operations—12+ years

*Brain is not fully developed until mid-20s*

What do they need?

- Predictable, Trusting environments
- Less stress is best
  - (toxic shock)
- Stimulation of their senses
  - Sight, Sound, Smell, Taste, Feel
- Novelty

What can Adults do?

- Provide consistent, reliable routine
- Offer variety of materials (sounds, textures)
- Support children’s exploration
  - Describe/label environment
  - Show enthusiasm of children’s new discoveries
- Understand stages of brain/cognitive development to set appropriate expectations
Physical Development

Large and Small Motor

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Large Motor Sequence

Put the following 8 skills in order of ‘sequence’—add what approximate age it should occur:

Running  Rolling Over  Kicking  Cutting
Crawling  Skipping  Catching  Walking

http://www.pbs.org/wholechild/abc/physical.html

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Tracking
Importance of *Tummy Time*

**What do they need?**

- Space
- Time
- Variety of surfaces and textures
  - Safe heights

**What can Adults do?**

- Provide time, space and materials to explore
- Encourage
- Support physically
  - Help them ‘move’ from one skill to the next
Sequence of Fine Motor Development

- Pinch grasp: 20 weeks
- Hand grasp: 26 weeks
- Superior palm grasp: 32 weeks
- Scissor grasp: 36 weeks
- Needle pincher grasp: 40 weeks

Stages/Sequence of Writing

- Early scribbles
- Early words
- Early sentences
- Early stories

What do they need?

- Art supplies
- Painting materials
- Craft materials
- Scissors
- Glue
What can Adults do?

- Offer opportunities with a variety of materials
- Encourage by noting attempts and asking children to share what they have written/drawn
- Do not criticize ‘incorrect’ letters/pictures

Language/Literacy Development
Receptive vs. Expressive

Stages of Language Development
(Birth to Age 3)

1. Crying
2. Cooing
3. Babbling
4. Gestures (8-12 months)
5. First words (8-18 months)
6. Telegraphic speech (18-24 months)
7. Grammatical speech (~2 ½ years)
“With few exceptions, the more parents talked to their children, the faster the children’s vocabularies were growing and the higher the children’s IQ test scores at age three and later.”

“The data revealed that the most important aspect of children’s language experience is its amount.”
Piaget
Assimilation and Accommodation

“The funny butterfly!”
"I think it is a Black Grasshopper!"
Iyan 4 years

What do they need?

• To hear language
  — Read to
  — Talked to

• To be able to have adults respond to their attempts at language
Strategies for Extended Conversation
(the more turns the better)

• Show Interest

• Paraphrasing
  • Repeating and pausing

• Open-ended question

• I wonder Statements

• Connect to previous experiences

Extending the Conversation
A Mother-Son Story

Mom (buying bread at a little shop): Sam, where do you think they get this bread?
Sam [age 4.5]: They must make it at the back of the store.
Mom [pause]: Do you remember when your school went to the bakery factory and saw them make bread?
Sam: Yes. They must have a little machine like that in the back of this store.
Mom: Hmm. How about these vegetables they are selling?
Sam: They must grow them right out back of the store.
Mom: Sometimes we go on drives in the countryside and see farms where vegetables are growing.
Sam: That food is sold in stores in the country. But not in our store here.

Sam = 4 turns

Social/Emotional Development
Stages of Play—Social

Onlooker/Solitary Play
Parallel
Associative
Cooperative

Self-Regulation

• Ability to calm
• Self-control
• Emotional recognition

Emotions and Self-Regulation

“I hate you!”

“I don’t want to be your friend!”

“You are NOT invited to my birthday party!”

All of these statements MEAN...
‘Feelings come and feelings go….sometimes I don’t know what they’ll be. Whatever the feelings are, they are all a part of me!’

What do they need?

• Trusting relationships
• Time to develop
• Opportunities to play with others and self-select activities
• Understanding of adults
• Adults to facilitate and support them

What can Adults do?

• Structure environment for least amount of stress
  — Should offer predictability and consistency
• Recognize signs of basic needs
• Name emotions
• Suggest words to work through the situation
• Offer physical support
• Stay calm and neutral