The Basic Definition in Individuals with Disabilities Education Act (IDEA)

- **“Learning disability” = umbrella term**
  
- **IN GENERAL:**
  - disorder is found in one or more of basic psychological processes involved in understanding or using language, spoken or written
  - disorder may manifest itself in imperfect ability to listen, think, speak, read, write, spell, or do mathematical calculations

Developmental Reading Disability

- Dyslexia affects 2 to 8 percent of elementary school children
- Reading difficulties
- Inability to separate sounds in words
- Problems sounding out words
Developmental Writing Disabilities

- Writing involves several brain areas and functions (dysgraphia)
- Brain networks for vocabulary, grammar, hand movement, and memory must all be in good working order
- Developmental writing disorder may result from problems in any of these areas

Developmental Arithmetic Disability

- Arithmetic involves recognizing numbers and symbols, memorizing facts, aligning numbers, and understanding abstract concepts like place value and fractions
- Any of these may be difficult for children with developmental arithmetic disorders, also called dyscalculia
What are the most common signs of ADHD?

- Persistent difficulty in finishing tasks, following instructions, and organizing work
- Inability to watch an entire television program
- Frequent interruption of others or excessive talking
- Tendency to jump into a task before hearing all the instructions.
- Difficulty in waiting or remaining seated
- Fidgeting, squirming

Diagnostic Criteria

*Behaviors must:*

- Be excessive, long-term, and pervasive
- Appear before age 7, and continue for at least 6 months
- Create a real handicap in at least two areas of a person's life, such as school, home, work, or social settings
- Different than "normal" distractibility or overstressed lifestyle prevalent in our society
ADHD Treatment Controversy

- Ritalin or Dexadrine reduce activity levels in hyperactive children and are routinely prescribe
  - Effective in increasing attention span and compliance BUT side effects considerable and long-term health consequences unclear
  - Help scholastic performance in short run BUT long-term evidence for continuing improvement is mixed

Are there other treatments for ADD/ADHD?

- Behavioral therapy
- Diet
Chapter 4: Middle Childhood

Module 4.2
Intellectual Development in Middle Childhood

INTELLECTUAL AND LANGUAGE DEVELOPMENT IN MIDDLE CHILDHOOD
Intellectual Development: Piaget

- Concrete operational stage
- Between 7 and 12 years
- Characterized by active and appropriate use of logic
  - Logical operations applied to concrete problems
  - Conservation problems; reversibility; time and speed, decentering

How does preoperational thought emerge?

- Shift from preoperational thought to concrete operational thought does not happen overnight
  - Children shift back and forth between preoperational and concrete operational thinking
  - Once concrete operational thinking is fully engaged, children show several cognitive advances
Piaget was Right…and Wrong

- **Right**
  - Virtuoso observer of children
  - Powerful theoretical, educational implications
  
- **Wrong**
  - Underestimate of children’s capabilities, in part because of the limited nature of mini-experiments conducted
  - Misjudged age at which children’s cognitive abilities emerge
  - Neglected cross-cultural differences

Information Processing

- Increasing ability to handle information at this age
  - Memory improvement
  - Short term memory capacity improvement
Thinking about Memory: Metamemory

- Understanding about processes that underlie memory
- Improves during school age years
- Helps children use control strategies (conscious, intentional tactics to improve functioning)

LANGUAGE DEVELOPMENT
Mastering the Mechanics of Language in Middle Childhood

1. Vocabulary continues to increase
2. Mastery of grammar improves
3. Understanding of syntax grows
4. Certain phonemes remain troublesome
5. Decoding difficulties when dependent on intonation
6. More competence in pragmatics
7. Increase in meta-linguistic awareness

Metalinguistic Awareness

- One of most significant developments in middle childhood is children’s increasing understanding of their own use of language
- By age 5 or 6,
  - Understand that language is governed by set of rules
- By age 7 or 8,
  - Realize that miscommunication can be due to factors attributable not only to themselves, but to the person communicating with them