Learners Who Are Exceptional

Children with Disabilities

- Learning Disabilities
- Attention Deficit Hyperactivity Disorder
- Mental Retardation
- Physical Disorders
- Sensory Disorders
- Emotional and Behavior Disorders
- Autism Spectrum Disorders
- Speech and Language Disorders
The Four Largest Groups of Students with Disabilities (% of all children in U.S. public schools)

<table>
<thead>
<tr>
<th>Disability</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning Disabilities</td>
<td>5.6%</td>
</tr>
<tr>
<td>Speech and Language Impairments</td>
<td>3.0%</td>
</tr>
<tr>
<td>Mental Retardation</td>
<td>1.1%</td>
</tr>
<tr>
<td>Emotional Disturbance</td>
<td>0.9%</td>
</tr>
</tbody>
</table>
Increase in % of Students Receiving Special Ed Services (2% in ‘76-77 to 12% in ‘94-5)

*Why?*

- Poor diagnostic practices and over-identification
- Teachers sometimes too quick to label children with the slightest learning problem – maybe it’s their teaching skills
  
  *or*

- Others argue increase is justified as we learn more about different learning disabilities
- It’s important to identify children who need assistance early
Consequences Associated with Learning Disabilities

Children with Learning Disabilities

- Difficulty in learning
- No other diagnosed problem/disorder

Outcomes

- Lifelong
- Poor academic records
- High dropout rates
- Poor employment and postsecondary education records
Reading, Writing, and Math Difficulties

- **Dyslexia**
  - Difficulty with phonological skills and comprehension
  - Severe reading and spelling learning disability

- **Dysgraphia**
  - Write slowly and illegibly
  - Numerous spelling errors

- **Dyscalculia**
  - Difficulty in math computation
  - Often have cognitive and neuropsychological deficits
Dyslexia

- The more common problem, *phonological dyslexia*, involves difficulty in sounding out words.

- The other type, *surface dyslexia*, involves difficulty in retrieving the correct pronunciation of exception words (e.g., yacht).

- Children diagnosed dyslexic tend to continue to be poor readers as adults.

- Studies show that training these children strategies to circumvent their difficulties can be helpful.
Mathematical Disabilities

- Approximate 6% of children in U.S. are labeled as having mathematical disabilities
- These children have difficulty both in executing back-up strategies (e.g., counting strategies) and in retrieving correct answers
- *Why?* Some have limited exposure to numbers before entering school, limited working memory capacity, and/or limited conceptual understanding
- Many of these children come from impoverished families with little education
Learning Disabilities: Causes and Interventions

- Learning disabilities tend to run in families (e.g., dyslexia) although the specific genetic transmission is not known.

- Some learning disabilities are likely caused by problems during prenatal development or delivery.

- Brain imaging studies indicate it’s unlikely learning disabilities reside in a single, specific brain area.

- Many interventions have focused on improving reading ability — intensive instruction over a period of time seems to help.
Strategies for Working with Children with Learning Disabilities

- Take the needs of the child with a learning disability into account during instructional time.
- Provide accommodations for testing and assignments.
- Make modifications in work assignments.
- Improve organizational and study skills.
- Work with reading and writing skills.
- Challenge children with a learning disability to become independent & reach their full potential.
Attention Deficit Hyperactivity Disorder

- Children with ADHD show one or more of the following characteristics over a period of time.
  - Inattention
  - Hyperactivity
  - Impulsivity

- % of children diagnosed for ADHD has doubled in 1990’s, 7% of U.S. children 3 to 17 years of age.

- ADHD occurs four to nine times more in boys.

- Intervention includes a combination of academic, behavioral, and medical interventions.
Strategies for Working with Children with ADHD

- Monitor whether the child’s stimulant medication is working effectively.
- Repeat & simplify instructions about assignments.
- Break assignments into shorter segments.
- State clear expectations and give the child immediate feedback.
- Use behavior management strategies, especially providing positive feedback for progress.
- Provide opportunities to get up and move around.
Mental Retardation

- By definition, mental retardation involves:
  - Onset before age 18
  - Low intelligence – IQ score < 70
  - Deficits in adaptive functioning

- Different causes of mental retardation include:
  - genetic factors (Down syndrome)
  - fetal alcohol syndrome
  - infections in the pregnant mother-to-be (e.g., rubella)
  - infections in childhood (e.g., meningitis)
  - environmental hazards (blows to head, malnutrition, poisoning)
Classification of Mental Retardation Based on IQ

- Mid IQ 55-70: 89%
- Moderate IQ 40-54: 6%
- Severe IQ 25-39: 4%
- Profound IQ < 25: 1%
- Complete IQ < 25: 1%
Classification of Mental Retardation Based on Support

<table>
<thead>
<tr>
<th></th>
<th>Supports are provided as needed.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Intermittent</strong></td>
<td>Supports are intense and relatively consistent over time.</td>
</tr>
<tr>
<td><strong>Limited</strong></td>
<td>Supports are characterized by regular involvement in at least some setting and are not time limited.</td>
</tr>
<tr>
<td><strong>Extensive</strong></td>
<td>Supports are constant, very intense, and are provided across settings.</td>
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<tr>
<td><strong>Pervasive</strong></td>
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</table>
Strategies for Working with Children Who are Mentally Retarded

- Help children make personal choices and engage in self-determination when possible.

- Always keep in mind child’s level of mental functioning.

- Individualize your instruction.

- Use concrete examples, clear & simple instructions.

- Have positive expectations for child’s learning.

- Consider using applied behavior analysis strategies.
Physical Disorders

**Orthopedic Disorders:** Restrictions of movement because of muscle, joint, or bone problems (i.e., cerebral palsy).

**Seizure Disorders:** Nervous disorders characterized by recurring sensorimotor attacks or movement convulsions.
## Sensory Disorders

### VISUAL IMPAIRMENTS

**Low Vision**
- Acuity between 20/70 and 20/200 with corrective lens

**Educationally Blind**
- Cannot use their vision in learning
- Must use hearing and touch to learn

### HEARING IMPAIRMENTS

**Oral Approaches**
- Lip reading and speech reading (reliance on visual cues)

**Manual Approaches**
- Sign language
- Finger spelling
# Speech and Language Disorders

## Speech Disorders
- **Articulation**
  - Pronouncing words incorrectly
- **Voice**
  - Hoarse, harsh, too loud/soft, pitch
- **Fluency**
  - Prolongation
  - Spasmodic hesitation
  - Repetition

## Language Disorders
- Difficulty phrasing questions
- Difficulty following oral directions
- Difficulty following conversations
- Difficulty understanding and using words correctly in sentences
## Autism Spectrum Disorders

### Autistic Disorder
- Onset within first three years of life
- Deficiencies in social relationships
- Communication abnormalities
- Restricted, repetitive, and stereotyped behavior patterns

### Asperger Syndrome
- Relatively good verbal language; milder nonverbal language problems
- Restricted range of interests and relationships
- Engage in obsessive repetitive routines and preoccupations
Emotional and Behavior Disorders

Serious, persistent problems that involve relationships, aggression, depression, fears associated with personal or school matters (7% of students, boys 3 times more likely).

Aggressive, Out-of-Control
- Have serious emotional disturbance
- Engage in aggressive, defiant, dangerous acts
- Greater in boys
- Occurs more often in low SES students

Anxiety and Fear
- Anxiety is a vague, highly unpleasant feeling of fear & apprehension
- If intense & prolonged, impairs school performance
- Refer to counselor
- Behavior therapy effective
Depression

- **Symptoms**
  - Feelings of worthlessness
  - Feelings of hopelessness
  - Behaving lethargically for a prolonged period
  - Poor appetite
  - Sleep problems

- **Incidence**
  - More likely in adolescence than childhood
  - Higher incidence in girls
Learners Who Are Exceptional

Educational Issues Involving Children with Disabilities

Legal Aspects

Technology
Individuals with Disabilities Act (IDEA)

**IDEA 1990:**
- Evaluation and eligibility determination
- Appropriate education
- Individualized education plan (IEP)
- “Least restrictive environment” (LRE)

**IDEA 1997 Amendments:**
- Positive behavioral support
- Functional behavioral assessment
Strategies for Working with Children with Disabilities

- Carry out each child’s *individualized education plan*
- Encourage your school to provide increased support and training
- Become more knowledgeable about the types of children with disabilities in your classroom
- Be cautious about labeling children with a disability
- Remember that children with disabilities benefit from many of the same teaching strategies that benefit children without disabilities
- Help children without a disability understand and accept children with a disability