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ABSTRACT

This module, which is one in a series of training packages intended to train educators working with handicapped adolescents and young adults in correctional settings, deals with the characteristics of special populations and issues in the education of incarcerated individuals. Addressed in the individual sections of the module are the following topics: the nature of various physical, emotional, and behavioral disabilities and impairments, the functional aspects of these handicapping conditions, and similarities between handicapped offenders and other incarcerated persons with skill deficits. The module includes instructional design specifications (module title, competency statement, rationale statement, prerequisites); module objectives; evaluation procedures and criteria, learning activities and alternatives; a content outline; references; handouts; overhead transparency masters; and a training evaluation form. (MN)

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INTRODUCTION

This module is one in a series of training packages that have been designed for working with the handicapped adolescent and young adult in correctional settings. This particular module focuses on the Charcteristics of Exceptional Populations. The complete set of C/SET Training Modules includes information on the following topics:

Module 1: Correctional Education/The Criminal Justice System
Module 2: Characteristics of Exceptional Populations (Juvenile and Adult)
Module 3: Overview of Special Education
Module 4: Overview of PL 94-142 and IEPs
Module 5: Assessment of Exceptional Individuals
Module 6: Curriculum for Exceptional Individuals
Module 7: Instructional Methods and Strategies
Module 8: Vocational Special Education

MODULE COMPONENTS

This module has been designed as a self-contained training package. It contains all the information and materials necessary to conduct training. Additional information and materials can be included at the discretion of the trainer.

Instructional Design Specifications. This cover page includes the following information:

Module Title
Competency Statement
Rationale Statement
Prerequisites

Module Objectives

Evaluation Procedures and Criteria

Learning Activities and Alternatives

Content Outline

References

Handouts

Overhead Transparency Masters

Training Evaluation Form

RECOMMENDED PREPARATION PROCEDURES

1. Review Materials. The trainer should thoroughly review the entire package and become familiar with the content of each component.

2. Conduct Needs Assessment.
   a. Type in the name and address of the trainer on the Needs Assessment Form.
   b. Duplicate the form and distribute to participants well in advance of the established training date(s).
      Note: Each item on the Needs Assessment Form corresponds to a major unit or section of the Content Outline as designated by a number, decimal, and a zero (e.g., 1.0, 2.0, 3.0). As such, each needs assessment question represents a very broad content area.

      A trainer may design a more specific needs assessment instrument by formulating questions related to subsections of the Content Outline. This is recommended when there is a specific pre-determined focus for training or when there is a limited amount of time for training.

3. Review the completed Needs Assessment Forms.

4. Select the topics/content to be presented.

5. Formulate objectives for the training sessions. The major objectives are listed on the Module Objectives pages(s). In situations where the training is more highly focused, the trainer should formulate more specific objectives.

6. Determine evaluation instruments and procedures. Evaluation procedures and questions corresponding to the objectives are listed in the Evaluation Procedures and Criteria section. Additional evaluation questions should be developed in situations where additional or more specific objectives have been formulated.

7. Determine learning activities.
   a. Review the Content Outline section and select the content to be presented.
   b. Review the Learning Activities section and prepare learning activities that relate to the objectives.
      Note: It is recommended that the format of the training session include frequent participant activities in addition to a traditional lecture presentation. For maximum effectiveness the trainer should change the format of the session at least every 30 minutes. In most cases this will require the development of additional learning activities.

8. Prepare overhead transparencies.
   a. Select and make overhead transparencies that will be used in the training session.
   b. Additional transparencies should be developed by the trainer when specific information needs to be emphasized.

c. In some cases the trainer may need to enlarge the transparencies when the training session will be conducted in a large room. Some transparencies will need to be separated where two have been placed on a page.

9. Prepare handouts
   a. Select and duplicate handouts.
   b. Additional handouts and materials for activities should be developed as needed.

DELIVERY OF MODULE TRAINING

The following is a list of recommendations for trainers relating to the delivery of module instruction.

1. Select a site conducive to training by considering the following:
   a. adequate size
   b. temperature control
   c. ventilation
   d. acoustics

2. Provide comfortable, moveable chairs and a hard writing surface for each participant.

3. Begin with a welcome and introduction of yourself. Include information on your background, training, and experience.

4. Explain the purpose of training.
   a. Provide a rationale (see Instructional Design Specifications section).
   b. Display and/or distribute a copy of the objectives the participants are expected to meet.
   c. Provide participants with a content outline listing the major and secondary level topics to be presented.

5. Explain the evaluation procedures to the participants.

6. It is recommended that the trainer provide a 10-minute break each hour. If the training session is to span the normal lunch period, provide at least 90 minutes. Access to refreshments during the training period is recommended.

7. Inform participants of the time-frame you intend to follow.

8. Periodically summarize the information you have presented.

9. Encourage participants to ask questions, ask for clarification, and/or ask for additional examples.

TRAINING EVALUATION

At the conclusion of the training session(s), ask the participants to complete the Training Evaluation Form.

C/Set Module #2: Characteristics of Exceptional Populations

Purpose: This module has been designed to meet the needs of individuals with a broad range of skills and experiences. Therefore, not all training sections and components may be appropriate for you. To determine your training needs and to make our training more efficient and effective, please complete the following survey. Since we need this information to prepare for the actual training sessions, please return the survey as soon as possible to:

Instructions: Please rate each of the following items with one of the following indications:

1. High training priority ("must be covered")
2. Medium training priority ("I could use the information")
3. Low priority ("Not needed or applicable")

Topic	Rating		
	High	Med	Low
1. Introduction to Exceptional Individuals	1	2	3
2. Characteristics of Incarcerated Individuals	1	2	3
3. Issues in the Education of Incarcerated Youth	1	2	3
4.	1	2	3
5.	1	2	3
6.	1	2	3
7.	1	2	3
8.	1	2	3
9.	1	2	3
10.	1	2	3

What other concerns, needs, or questions do you have regarding the topic covered in this module?

Other comments, concerns, recommendations.

PROGRAM: C/SET Training Modules

MODULE: Characteristics of Exceptional Populations

COMPETENCY: Upon completion of Module #2, the participant will be able to describe the characteristics of handicapped or exceptional individuals and discuss issues in the education of incarcerated individuals.

RATIONALE: Correctional educators need to have a basic understanding of the characteristics of exceptional individuals with various handicapping conditions. This module presents basic information on various disabilities and emphasizes functional aspects of handicapping conditions. Similarities between handicapped offenders and other incarcerated persons with skill deficits are also discussed.

PREREQUISITES: None Specified

1.0 Functional definitions of exceptionality

After completion of this module, the participant will be able to:

1.1 Identify the characteristics of exceptional learners.

1.2 Identify the most important/common characteristic of each category: speech/language disorder, sensory impairments, physical impairments, mental retardation, behavioral disorder/emotional disturbance, learning disability.

1.3 Differentiate necessary functional skills from other learning tasks.

2.0 Characteristics of incarcerated individuals

2.1 Name groups which are overrepresented in corrections populations.

2.2 State social skill deficits frequently displayed by incarcerated individuals.

2.3 State academic skill deficits frequently displayed by incarcerated individuals.

2.4 Describe evidence of the school failure among incarcerated adults and youth.

2.5 Identify family problems characteristic of a disproportionate number of offenders.

2.6 Identify the theory which best accounts for the overrepresentation of learning disabled youth among juvenile delinquents.

3.0 Issues in the education of incarcerated individuals

3.1 State the degree to which handicapped juvenile offenders receive the special education they require.

3.2 Identify the characteristics of adult learners.

3.3 Identify the occasions when incarcerated individuals need transition services.

PRE/POST TEST OF OBJECTIVES

1.0 Functional definitions of exceptionality

1.1 Which of the following statements are true of exceptional individuals? (Circle)

a. All are mentally different from non-handicapped.
* b. All are capable of learning.
* c. They require special education, services, or devices.
* d. They most often differ in their rate of behavior or learning.
e. They are not successful academically.

1.2 Characteristics

Identify the most important/common characteristic of each category:

(g) ___ Speech/language disorder
(c) ___ Sensory impairments
(j) ___ Mental retardation
(i) ___ Behavioral disorders
(b) ___ Physical impairments
(h) ___ Learning disabilities

a. Schizophrenia
b. Special health problems
c. Brain damage
d. Functional with aids
e. Cleft palate
f. "Mongoloid"
g. Difficulty producing grammatical sentences
h. Academic deficiencies
i. Inappropriate behavior over time
j. Deficits in adaptive behavior as well as intellectual functioning
k. Hyperactivity
l. Distorted voice pitch

Etiological Issues (Circle T or F):

T *F a. Speech and language disorders are an indication of other hidden disabilities.

*T F b. Persons with speech disorders often exhibit language disorders.

*T F c. Hearing and visual impairments are caused by accidents, disease, and hereditary factors.

T *F d. Sensory impairments typically refer to the loss of the sense of touch.

*T F e. The majority of adults with physical impairments became disabled through accidents and disease.

T *F f. Adults with physical impairments are most often learning disabled.

T *F g. Mental retardation is determined by IQ test scores only.

*T F h. The causes of most mental retardation are unknown.

*T F i. Alcohol consumption by pregnant women can cause mental retardation in their children.

*T F j. Behavioral disorders or emotional disturbance can be caused by a number of biophysical and environmental factors.

T *F k. Individuals with behavioral disorders are typically very aggressive.

T *F l. The neurological causes of learning disabilities are well known.

*T F m. Learning disabled individuals exhibit average intelligence.

1.3 A functional approach to instruction suggests that handicapped students need to learn: (Circle)

* a. reading and computation skills required for work situations
* b. how to identify the relevant aspects of a task
c. visual-perceptual skills such as mazes and dot-to-dot
* d. strategies for remembering what they learn
e. reading comprehension for social science texts
f. diet and nutrition information
g. beginning college algebra
* h. oral and written communication skills
i. the neurophysiological cause of their disability
j. all of the above

2.0 Characteristics of incarcerated individuals

2.1 State three groups which are overrepresented in corrections populations:

(1)_____ (males)
(2)_____ (minorities)
(3)_____ (low socio-economic status)

2.2 State two social skill deficits frequently displayed by incarcerated individuals:

(1)_____
(excessively despondent and/or getting along with others)
(2)_____
(unrealistic expectations)

2.3 State three academic skill deficits frequently displayed by incarcerated individuals:

(1)_____
(language: spoken and written)

(2)_____
(reading)

(3)_____
(computation)

2.4 Only about _____% of offenders complete high school. (20%)

2.5 Which of the following descriptors apply to the families of a disproportionate number of offenders? (Circle)

a. Rich, overindulgent parents
* b. Single parent
c. Highly educated parent(s)
* d. Abusive or neglectful parent(s)
e. Family members with serious illness
f. Over-religious parent(s)

2.6 Which of the following theories best accounts for the overrepresentation of learning disabled youth among juvenile delinquents? (Circle one)

a. They compensate for poor academic performance by trying to impress their peers through delinquent acts.
b. Labeling tends to group them with other problem youth.
c. They display poor judgment.
d. They are genetically predisposed to criminal behavior.
* e. They are treated differently by the juvenile justice system.

3.0 Issues in the education of incarcerated individuals

3.1 Approximately ____% of handicapped juvenile offenders receive the special education they require by law. (80%)

3.2 List three characteristics of adult learners:

(1)_____
(learn by doing)

(2)_____
(motivated when instruction draws on personal experience)

(3)_____
(like to plan activities)

3.3 Circle the occasions when incarcerated individuals need transition support:

* a. Prior to release
* b. During transition
* c. In the community after release

These learning activities supplement the instruction described in the Content Outline. Each activity corresponds to specific module objectives, and all require participant discussion.

Learning Activity 1 (Objective 1.1)

Introduction:
Attributes, behaviors, or skills have no meaning of their own. They only have meaning when they are evaluated within a particular social setting. Behaviors or attributes which violate a particular social group's norms are evaluated negatively.

Large group discussion:
What are two attributes considered important in our society today?

(Answers should include attractive appearance and achievement.)

How do we teach disabled persons that their deviation is "bad"?

Learning Activity 2 (Objective 1.2)

Each participant should write the answers to the following question on a small piece of paper:

Which would you prefer to be:
(1) Mentally retarded or behaviorally disordered?
(2) Visually impaired or hearing impaired?
(3) Physically disabled or language disordered?

Each participant may then share his or her responses and the reasons for each response with the group.

Learning Activity 3 (Objective 1.3)

Large group discussion:
A. Name ways in which a person may react to his or her disability.

(Answers may include:
(1) Try to hide the disability
(2) Give up (lack persistence or motivation)
(3) Try to overcompensate for the disability
(4) Make self-derogatory statements about themselves
(5) Reject participation with non-disabled
(6) See their disability as an impediment that makes some things difficult or impossible but as no reflection on their worth.)

What kinds of barriers would these reactions present when the individual is in a learning situation? What would be the challenges for the teacher?

B. What are disabilities that can be "hidden"? What are disabilities that cannot be hidden?
How would a person's success at hiding the disability affect his or her self-perception?

Learning Activity 4 (Objective 2.1)

Have the group look at Handout 11 regarding the incidence of handicap in correctional facilities by state. Participants should locate the figures for their own state and compare it with the figures for other states. Discuss the implications for providing service.

Learning Activity 5 (Objective 2.2)

Small or large group discussion:
How are unrealistic expectations and excessive dependency related to criminal behavior?
What might the implications of these traits be for correctional education?

Learning Activity 6 (Objective 2.3)

Large group discussion:
(Use Transparency 7.) Discuss the importance of each social and academic skill to vocational training. Give examples of work situations in which that skill would be crucial. Give examples where that skill would not be so important.

Encourage participants to think of examples from their own past work experience.

Learning Activity 7 (Objective 2.5)

Small group:
Discuss the merits and shortcomings of each theory regarding the relationship between learning disability and juvenile delinquency.

After the sharing of responses, present the information in paragraph 2.6.3.

Learning Activity 8 (Objective 3.2)

Have each participant write what they believe to be five characteristics of adult learners based on their own adult learning experiences. As the participants share their opinions with the group, compile a list on the chalkboard or overhead projector. Then pass out Handout 12, give them 10 minutes to read it, and have the participants discuss it in small groups, comparing the class list with the 30 facts in the handout.

The following alternatives may be used by themselves or in conjunction with each other and/or lecture. The alternatives are not meant to be exhaustive. Rather, they are illustrative of the range of instructional formats available. Learning Activities on the preceding pages may also be used as alternatives.

Alternative 1: Discussion

Ask participants to discuss the following questions as members of small groups or ask the entire class to participate in a large group discussion of these issues.

1.1 Exceptional Individuals

A. Ask participants if they have neighbors of friends who are exceptional or who are handicapped.
What is the nature of their disability or handicapping condition?
What limitations are imposed on them by actual disabilities?
What limitations are imposed on them by architectural barriers?
What limitations are imposed on them by other people's attitudes?
If known, how were the school experiences of these exceptional people affected by their disabilities?

B. Have participants research and bring to class information on famous people with disabilities. A partial list might include:

Thomas Edison (inventor), thought to be learning disabled
Helen Keller (educator), deaf-blind
Franklin D. Roosevelt (president), physically disabled by polio
Ludwig von Beethoven (composer), deaf in later years
Vincent Van Gogh (painter), emotionally disturbed
R. D. Laing (psychologist and philosopher), schizophrenic
Stevie Wonder (songwriter, musician), blind

Speculate on how these individuals accomplished so much in their lifetimes in spite of their disabilities.

1.2 Specific Disabilities

Assign participants selections from the books by Brightman and Kleinfield (see Resources). Ask participants to read these selections and briefly discuss the disabled persons they read about.
Do these accounts fit into our stereotypic ideas of the lives of handicapped people?

1.3 Functional Approaches

Given the learning characteristics of exceptional persons (presented in Section 1.2), have the participants list the considerations to be taken into account when planning instruction.
What implications does each limitation have on what should be taught and how it should be taught?

For:	What?	How?
Speech/language		
Hearing impaired		
Visually impaired		
Physically impaired		
Mentally retarded		
Emotionally disturbed		
Learning disabled		
Any common to all?		

2.0 Characteristics of Incarcerated Individuals

A. Ask participants to identify the similarities and differences between disadvantaged incarcerated individuals and handicapped incarcerated individuals.

B. Ask participants to develop, as a group, a hierarchy of essential skills that all incarcerated individuals need to successfully maintain a job and live independently in the community.

2.6 Learning Disabilities and Juvenile Delinquency

Ask participants to speculate on why learning disabled youth are over-represented among juvenile delinquents. List the participants' theories on a chalkboard or overhead projector. After discussion, compare the list with information in Section 2.6.2 (Content Outline).

3.0 Educational Issues

Ask participants to address the following questions in small group discussions:

(1) Should minimum standards be established for all correctional education programs?
(2) Should all incarcerated juveniles and adults have the right to educational services?
(3) Should educational services for incarcerated handicapped youth be differentiated from services for incarcerated youth with similar skill deficits who are not considered handicapped?

Alternative 2: Guest Speakers

A. Ask a teacher or coordinator of public school programs for behaviorally disordered or learning disabled students to discuss the educational services they provide to students. Ask the speaker also to discuss the contact that they or their students have had with the juvenile justice system.

B. Ask a prosecuting attorney or representative from your state's department of corrections or juvenile justice system to address policies regarding correctional education and the provision for the needs of exceptional individuals. Which advocacy groups or social service agencies are involved?

1.0 INTRODUCTION: Overview of module and objectives.

The module is comprised of three parts:

(1) Functional definitions of handicaps
(2) Characteristics of incarcerated individuals
(3) Issues in the education of incarcerated persons

The objectives of the training module are listed in Handout 1.

1.1 **Exceptional individuals** are those persons with physical, mental, sensory, or behavioral differences that require special education, related services, and/or devices as youth and support services or devices as adults (Transparency 1).
When talking about differences, we must remember that every person is different from every other person. Individuals are labeled as exceptional only to insure that they will receive necessary education or services. The designation of "exceptional" or "handicapped" is applied only when the disability is of such an intensity to warrant special services.

1.1.1 The terms "handicapped", "disabled", and "impaired" often are used interchangeably to denote exceptional individuals. **Handicap** refers to the person's limitations in relation to a specific circumstance or environment. A handicap is not always with the person; it is situation-specific. (Learning Activity 1).

1.1.2 All exceptional individuals are capable of learning. Research since the 1950's has increasingly demonstrated that even profoundly handicapped individuals can learn.

1.1.3 The most salient characteristic of exceptional individuals is their rate of behavior--that is, they do things at a more rapid or slower pace than non-exceptional or non-handicapped persons.
e.g., Behaviorally disordered: deviant behaviors at a higher rate
Mentally retarded: school tasks at a lower rate of performance.

1.1.4 Labels should be used cautiously for these three reasons:
(1) Exceptional individuals often have more than one handicap or problem.
(2) A disability may produce different behaviors in different persons.
(3) Similar behaviors may be found in individuals with different disabilities.

There is some disagreement -- even within special education -- with regard to definitions of specific disabilities. Even "good" definitions are not equally useful or acceptable to members of different professional groups.

1.1.5 Functional determinations of handicaps are related to specific cognitive, motor, social, or communicative behaviors (or functions) affected by the disability rather than questionable factors of etiology or psycholinguistic/psychoneurological processes. The functional aspects of disability have immediate relevance to skills the teacher can address within the context of a classroom.

1.1.6 For educational purposes, assessment and instruction of exceptional individuals should focus on academic, social, and vocational skills.
While the etiology (or cause) of specific handicapping conditions may be professionally or personally interesting, it seldom provides instructionally relevant information.

1.2 CHARACTERISTICS OF SPECIFIC DISABILITIES: Discussion of the range of disabilities and impairments in the population. (See discussion strategies in Learning Activities section.)

1.2.1 **Speech and language disorders** involve difficulty communicating with others.
Speech disorders occur when the speech interferes with the process of communicating with others or draws undue attention to the speaker.
Language disorders are present when the oral communication of the speaker is seriously deficient when compared to peers.
Persons with speech disorders sometimes also exhibit language disorders. A large number of incarcerated individuals exhibit speech and language disorders.

1.2.1.1 **Speech disorders** involve oral communication that is unintelligible or otherwise unsatisfactory, drawing undue attention to the speaker (Transparency 2).

Articulation disorders occur when there is omission, substitution, or distortion of speech sounds.
Voice disorders are characterized by pitch, loudness, or quality that interferes with communication or is unpleasant to listen to.
Dysfluency is a disturbance in the rhythm of speech (e.g., stuttering). It is marked intermittent blocking, repetition, or prolongation of sounds or syllables.

1.2.1.2 **Language disorders** involve difficulties producing or expressing ideas in words. Language disorders also can involve problems in understanding how language is organized and difficulty in deriving meaning from the symbolic use of language.

Communication requires knowledge of the rules of language, i.e. knowing how words are correctly joined to form an intelligible sentence and understanding sentences with complex structures. Symbolic uses include logic, humor, imagination, and abstract thought.

1.2.1.3 Speech and language disorders are caused by a number of factors including:

(1) Physical impairments, e.g., cleft palate, cerebral palsy
(2) Intellectual deficits, e.g., mental retardation, learning disabilities
(3) Emotional disabilities, e.g., psychosis
(4) Sensory deficits, e.g., hearing loss
(5) Environmental deficits, e.g., lack of language stimulation in a child's early years

1.2.1.4 Speech and language disorders occur in approximately 3.5% of the school-age population. They are most common among those with other handicapping conditions (e.g., mental retardation, physical impairment). Articulation disorders are most prevalent among young children and frequently disappear with maturation (e.g., /w/ instead of /r/ as in "wabbit"). Language disorders are the least prevalent of the communication disorders.

1.2.1.5 Speech and language disorders often create feelings of frustration, rejection, and guilt for the disabled speaker. (**Handout 2** gives an example of the relationship between a language disorder, its possible neurological causes, and corresponding emotional disorder.)

1.2.2 **Sensory impairments** that are handicapping conditions include partial or total loss of hearing or sight.

1.2.2.1 **Hearing impairments** are present when a hearing loss adversely effects a person's educational or vocational performance. The degree of impairment caused by hearing loss is due to a number of factors including age of onset and adaptive and educational interventions provided. Hearing loss in a very young child may interfere with the child's acquisition of language.

"Deaf" means a hearing impairment which is so severe that the person's hearing, even with amplification (i.e., hearing aid), is nonfunctional for the purpose of educational performance (**Transparency 3**).

"Hard of hearing" means a hearing condition which is functional with amplified sound, but presents difficulties in educational performance.

(Discuss **Handout 3** on the effect of varying degrees of hearing impairment.)

1.2.2.2 Hearing impairments are caused by:
(1) prenatal trauma
(2) infectious disease in the pregnant mother, e.g., rubella (German measles), venereal disease
(3) prolonged ear infections

1.2.2.2 **Visual impairments** involve less than optimal ability to see objects. Some visually impaired persons may be blind, having no sight at all. Others may have low vision and are only able to see very close objects. Still others may be visually limited and need additional lighting or optical aids (**Handout 4**).
Like hearing impairments, the degree of visual impairments is related to age of onset and the quality of cognitive and educational intervention provided.

1.2.2.3 Visual impairments are caused by:
(1) prenatal trauma
(2) infectious disease in the pregnant mother, e.g., rubella, venereal disease, toxoplasmosis
(3) toxic amounts of oxygen to premature infants
(4) accidents
(5) high amounts of toxins, e.g., lead, mercury
(6) hereditary factors
(7) disease which effects vision, e.g., diabetes, glaucoma, cataracts

1.2.2.4 Hearing impairments occur in approximately .5% of all school-age population.
Visual impairments occur in approximately .1% of all school-age children.
(See **Handout 5** for incidence figures among juveniles in correctional facilities.)

2.3 **Physical impairments** are physically handicapping conditions that are not primarily auditory or visual. Physical impairments include conditions such as: cerebral palsy, muscular distrophy, spina bifida, epilepsy, and diabetes (**Handout 6**).

Persons with physical impairments in conjunction with other disabilities are considered multiply handicapped.

1.2.3.1 Individuals with physical impairments are a very heterogeneous group. Most persons with physical impairments exhibit normal intelligence but have special health problems or difficulties in communication or mobility.

1.2.3.2 The number of school-age children with physical impairments is approximately .5%. The incidence among juveniles in correctional facilities is smaller still (see Handout 5).

1.2.3.3 The majority of adults with physical impairments became disabled through accidents and disease.

1.2.3.4 Many physical impairments limit the ability of disabled persons to participate in normal activities. For some impairments, prosthetic or adaptive devices (e.g., wheelchairs, respirators, artificial limbs) allow disabled individuals to participate more fully in daily activities. (Discuss Handout 7.)

1.2.4 **Mental retardation** is a disability generally defined by subnormal intellectual functioning and deficits in adaptive behavior. Subnormal intellectual functioning is determined by scores on standardized intelligence tests (IQ). Deficits in adaptive behavior refer to poorly developed daily living skills.

1.2.4.1 Mental retardation in the general population ranges from mild and moderate to severe and profound handicap (Transparency 4). Mildly retarded also have been referred to as "educable" mentally retarded (EMR). Moderately retarded sometimes are also referred to as "trainable" (TMR).

1.2.4.2 Terms such as "cretin", "imbecile", and "moron" are no longer used. The term "mongoloid", once used to describe persons with a chromosomal abnormality called Downs Syndrome, is no longer used because it is ethnically stereotypic.

1.2.4.3 From 1% to 3% of the school-age population is mentally retarded (Transparency 5), depending on the criteria used to define this disability. The incidence among juveniles in correctional facilities is about 4% (see Handout 5).

1.2.4.4 Most causes of mental retardation are unknown. Retardation from known causes can be grouped under these categories:

(1) Infection and intoxication, e.g., rubella, venereal disease, encephalitis, meningitis
(2) Trauma resulting in brain damage, e.g., anoxia, premature birth, accidents before, during, or after birth
(3) Chromosomal abnormality, e.g., Downs Syndrome
(4) Cultural-familial factors, e.g., deprivation.

Alchohol consumption by pregnant women can cause brain damage and subsequent mental retardation in their children. Cultural-familial refers to causes associated with hereditary and environmental factors.

1.2.4.5 Most mentally retarded individuals live at home and attend local schools as youngsters and live with their families or in the community as adults.

1.2.4.6 Mentally retarded individuals are capable of learning many things. The performance of mildly retarded on some tasks is not significantly different from the average performance of non-retarded persons, but on other tasks performance is significantly lower.

Their slower rate of learning is most often due to poor performance in the early stages of learning. Mentally retarded are slower in identifying the response required by the task.

Mentally retarded have more difficulty in focusing on the relevant aspects of the task.

Mentally retarded students fail to use learning strategies spontaneously (e.g., verbal rehearsal, clustering, mnemonic devices). They can, however, be trained to use these strategies.

Mentally retarded students do not maintain these strategies independently; they require frequent practice to remember them.

Learning strategies learned in one situation do not necessarily transfer to other settings or tasks.

1.2.5 **Behavioral disorders and emotional disturbance** are disabilities related to interpersonal and intrapersonal difficulties.

1.2.5.1 Individuals exhibiting behavioral disorders or emotional disturbance may be aggressive and acting out, socially withdrawn, or dependent and immature.
They typically exhibit one or more of the following characteristics to a marked degree and over an extended period of time:
(1) Inability to learn which cannot be explained by intellectual, sensory, or health factors
(2) Inability to build or maintain satisfactory interpersonal relationships with others
(3) Inappropriate types of behavior or feelings under normal conditions

(4) A general, pervasive mood of unhappiness or depression
(5) A tendency to develop physical symptoms, pains, or fears associated with personal problems.

1.2.5.2 The criteria ("to a marked degree" and "over an extended period of time") is somewhat subjective. All people exhibit one or more symptoms at stressful times in their lives without being considered emotionally disturbed. (See **Handout 8** regarding the relationship between normal and disturbed behavior.)

1.2.5.3 **Behavioral disorder** is a term used by educators and others who take a functional approach to remediation. **Emotional disturbance** is a term used be clinicians and others with a concern for etiology. Some professionals use the terms interchangeably and others regard emotional disturbance as a more severe impairment than behavioral disorders.

1.2.5.4 Some psychologists identify disorders using four clusters, or dimensions of disturbance (**Transparency 6**):
(1) conduct disorders
(2) personality disorders
(3) immaturity
(4) socialized delinquency.
(**Handout 9** describes the relationship between conduct disorders and delinquency.)

1.2.5.5 The prevalence of behavioral disorders or emotional disturbance among the school-age population ranges from .5% to 10% depending upon the criteria used. The incidence among incarcerated juveniles is about 13%, although estimates vary widely from state to state (see Handout 5).

These disorders are far more prevalent among boys; the ratio of males to females is cited as anywhere from 2:1 to 5:1.

1.2.5.6 Behavioral disorders and emotional disturbance can be caused by a number of biophysical and environmental factors. Most often it is difficult to determine the precise cause of disordered behavior. Typically, interaction among biological, familial, and other environmental factors are associated with disordered behavior.

1.2.5.7 Most individuals with this impairment exhibit mild to moderate behavioral disorders. Severe forms of behavioral disorders or emotional disturbance such as psychosis, schizophrenia, or autism are very rare.

1.2.6 **Learning disabilities** are impairments exhibited by individuals of normal intelligence who have an uneven pattern of behavioral and academic development.

1.2.6.1 The field of learning disabilities is a relatively new area of special education, begun only in the early 1960's.

1.2.6.2 The most common characteristic of learning disabled individuals is academic deficiency. Learning disabled students may have difficulty performing tasks in certain academic areas such as handwriting, reading, spelling, and mathematics. The learning disabled person may have difficulty in one academic skill but not in another.

1.2.6.3 Some individuals also may exhibit hyperactivity, perceptual difficulties, delay of language development, memory deficits, or problems paying attention to the relevant aspects of the task.
Learning disabled students do not employ appropriate learning strategies effectively.

1.2.6.4 Approximately 3% of all school-age children exhibit one or more learning disability. The incidence among incarcerated juveniles is about 8% (Handout 5).

1.2.6.5 The origin (or etiology) of learning disabilities is a controversial topic. Originally, learning disabilities were thought to occur because of brain damage or neurological dysfunction.
More recently, biochemical factors such as diet and mineral deficiencies in the body have been investigated.
Other professionals argue that environmental factors, such as poor school experiences, are the primary cause of learning problems.

1.2.6.6 Most learning disabled adults exhibit mild to moderate disabilities. Spelling presents the most problems, and many still have difficulty with reading and math. Learning disabled adults, for the most part, learn specific strategies to adapt to their specific disabilities. (**Handout 10** gives a personal account of the problems faced by a learning disabled adult.)

Optional: **Learning Activity 2**

1.3 A FUNCTIONAL PERSPECTIVE ON EXCEPTIONAL INDIVIDUALS: how expectations and task function affect learning.

1.3.1 Expectations of others influence the manner in which we behave. For many handicapped individuals, low expectations, prejudice, and discrimination create barriers or difficulties just as formidable as their actual impairments.

Optional: **Learning Activity 3**

1.3.2 Educators and others working with handicapped individuals need to teach functional academic skills at an appropriate functional pace.

1.3.3 As learners, some handicapped individuals have trouble remembering newly presented information, are easily distracted, and are easily confused. Instruction for students exhibiting these characteristics should take these factors into account.

2.0 CHARACTERISTICS OF INCARCERATED INDIVIDUALS

2.1 **Demographic characteristics**

2.1.1 Delinquent or unlawful acts are committed by individuals of all ages and ethnic or racial backgrounds. Among incarcerated juveniles and adults, males, blacks, and persons from low socio-economic status groups are significantly overrepresented. In recent years, there has been an increase in the number of crimes committed by females and in the severity of crimes committed by juveniles.

2.1.2 Approximately 28% of juveniles and 10% of all adults in detention and corrections have identifiable handicapping conditions or impairments according to the recent C/SET study. (Estimates vary, depending on each state's definition of handicap.)

Optional: **Learning Activity 4**

2.1.3 Many incarcerated individuals not identified as handicapped exhibit characteristics similar to learning disabled, behaviorally disordered, and mentally retarded individuals. Many incarcerated individuals exhibit behaviors associated with social and academic skill deficits, school failure, and turbulent family background.

2.2 **Social skill deficits**

2.2.1 Incarcerated individuals display some of the same social skill deficits that you and I exhibit. Incarcerated individuals often display these deficits more frequently or to a greater degree (**Transparency 7**).

2.2.2 Many incarcerated individuals have difficulty getting along with others, negotiating or being flexible, or putting themselves in another's position.

2.2.3 Additionally, many have unrealistic expectations of themselves or others.

2.2.4 Some incarcerated individuals are excessively dependent on others and have trouble acting independently or without being given direction.

Optional: **Learning Activity 5**

2.3 **Academic skill deficits**

2.3.1 Many incarcerated individuals have severe problems in using written and spoken language.

2.3.2 The average reading and computational abilities of incarcerated individuals are comparable to those of a fifth or sixth grade student.

2.3.3 The academic skill deficits of many incarcerated students prevent them from enrolling in vocational programs where minimal competencies in reading, writing, and computation are required.

Optional: **Learning Activity 6**

2.4 **School failure**

2.4.1 The school careers of many incarcerated individuals are characterized by frustrating and alienating experiences (**Transparency 8**) such as repeating grades and attendance at a number of different schools.

2.4.2 Many individuals in detention dropped out or were pushed out of school prior to completing 12th grade.

2.4.3 Less than 20% of all incarcerated juveniles or adults have completed their high school education or have received a graduate equivalency degree (G.E.D.).

2.5 **Family structure**

2.5.1 A disproportionate number of incarcerated individuals come from low socio-economic status backgrounds and single-parent families.

2.5.2 Many incarcerated individuals with significant academic skill deficits are members of families in which parents or siblings did not complete school.

2.5.3 A significant number of juvenile and adult offenders were victims of abuse and neglect as children.

2.5.4 Most adults from low socio-economic status backgrounds and single-parent families do not commit criminal acts nor are they incarcerated.

2.6 **Learning disabilities and juvenile delinquency**

2.6.1 There is an overrepresentation of learning disabled (LD) individuals among juvenile delinquents.

2.6.2 A number of theories have been advanced to explain this phenomena (**Transparency 9**). They include:

2.6.2.1 **Susceptibility:** LD youth display poor judgment and are susceptible to influence by delinquent peers.

2.6.2.2 **Compensation:** Because of poor academic performance, LD youth compensate by finding success and status in committing delinquent acts.

2.6.2.3 **Labeling:** Because of poor academic performance, LD youth are labeled as problem students and consequently are grouped and associated with delinquent youth.

2.6.2.4 **Differential treatment:** LD youth are treated differently by the juvenile justice system than are other youths.

Optional: **Learning Activity 7**

2.6.3 The overrepresentation of LD youth among the population of juvenile delinquents is probably best explained by the differential treatment theory. In investigating the LD/JD phenomena, researchers speculate that LD youth are not involved in more delinquent activities than their non-handicapped peers. Rather, LD youth are more likely to get caught committing delinquent acts and, once caught, more likely to be placed in detention than non-learning disabled youth. This differential treatment theory suggests that the poor social and academic skills of LD youth are associated with differential treatment by the juvenile justice system.

3.0 ISSUES IN THE EDUCATION OF INCARCERATED YOUTH

3.1 Right to education

3.1.1 Juveniles in detention have a right to education established by mandatory school attendance laws in various states. Currently about 92% are being served in correctional education programs.

3.1.2 Handicapped offenders through age 21 have a right to education established by state and federal legislation (PL 94-142). A few states mandate educational services for inmates whose academic achievement level is below a specific grade level. Currently about 80% of handicapped juveniles in correctional facilities are receiving special education, and only about 10% of handicapped adults.

3.1.3 For many adolescents above age 16 and adults in detention or correction, there is no guaranteed right to education. Only about 30% of incarcerated adults participate in correctional education programs.

3.1.4 In recent years, Chief Justice Burger, members of Congress, and organizations such as the Correctional Education Association have lobbied to establish a right to education for the incarcerated.

3.2 Incarcerated individuals as adult learners

3.2.1 In spite of social and academic skill deficits, most individuals in detention and correctional facilities exhibit learning characteristics of adults rather than children (Handout 12).

Optional: **Learning Activity 8**

3.2.2 As adult learners, incarcerated students need to be actively involved in the learning process. Adults learn by doing.

3.2.3 Adult learners are most highly motivated when instruction draws on their own personal experience, is problem centered, and gives them a sense of purpose.

3.2.4 Educational programs for adult learners are most successful when students are involved in planning activities, setting goals, and monitoring their own progress.

3.3 Transitions from institutions to the community

3.3.1 Few correctional agencies or correctional education programs have adequate services to assist the offender in returning to the community.

3.3.2 Adequate transitional services must include aftercare workers with job placement, supervision, and support skills.

3.3.3 The academic, social, and vocational skills of ex-offenders need to be matched to programs and job placements in the community.

3.3.4 Correctional educators and parole and probation officers need to collaborate in providing adequate support for incarcerated individuals prior to release, during transition, and when out in the community.

3.4 Characteristics of well-designed correctional education programs (Transparency 10)

3.4.1 Well-designed correctional education programs take a functional approach to assessment.

3.4.2 They use curricula that teaches functional academic and daily living skills.

3.4.3 They teach important vocational skills.

3.4.4 They provide transitional services to students going from the institution to the community.

3.4.5 They provide specialized services to handicapped students.

3.4.6 They have an ongoing program of staff development.

The annotated bibliography that follows can be used by instructors or participants interested in reading about exceptional individuals as children and adults.

Books

Brightman, A. J. (Ed.). (1984). Ordinary moments. Baltimore: University Park Press.

This book is a moving first-person account of eight disabled individuals and their lives. What the authors of the various chapters have to say about who they are makes us realize how similar we are to them.

Hallahan, D. P., & Kauffman, J. M. (1978). Exceptional children: Introduction to special education. Englewood Cliffs, NJ: Prentice-Hall.

This introductory text provides an overview of the field of special education and a range of handicapping conditions. It would serve as a resource for instructors or students interested in locating additional information on a specific topic.

Heward, W. L., & Orlansky, M. D. (1984). Exceptional children (2nd ed.). Columbus, OH: Charles E. Merrill.

This is another good introductory text. The authors provide many practical guidelines for teachers of exceptional learners. In addition, there are many interesting personal accounts about the effects of childhood disability on the lives of exceptional adults.

Kleinfield, S. (1977). The hidden minority: America's handicapped. Boston: Little, Brown, and Company.

This book discusses the lives of a number of disabled adults. The author does an excellent job of describing the handicapped community and their relationship to those of us who are "TABs" (temporarily able bodied).

Suran, B. G., & Rizzo, J. V. (1979). Special children: An integrative approach. Glenview, IL: Scott, Foresman & Company.

This special education text discusses many issues regarding the classification of children and provision of appropriate services. The authors have included many interesting case studies.

Article

Rutherford, R. B., Nelson, C. M., & Wolford, R. B. (1985). Special education in the most restrictive environment: Correctional special education. Journal of Special Education, 19, 1.

This article reviews the status of specialized educational services for handicapped offenders in the United States. Results of a nationwide survey are presented.

"Exceptional"

Definition:

Persons with differences

Physical

Mental

Sensory

Behavioral

And who require

Special education

Services

Devices

T-1

Speech and Language Disorders

Speech

- Articulation
- Voice
- Dysfluency

Language

- Rules
- Symbolic uses

T-3

Degrees of Hearing Impairment

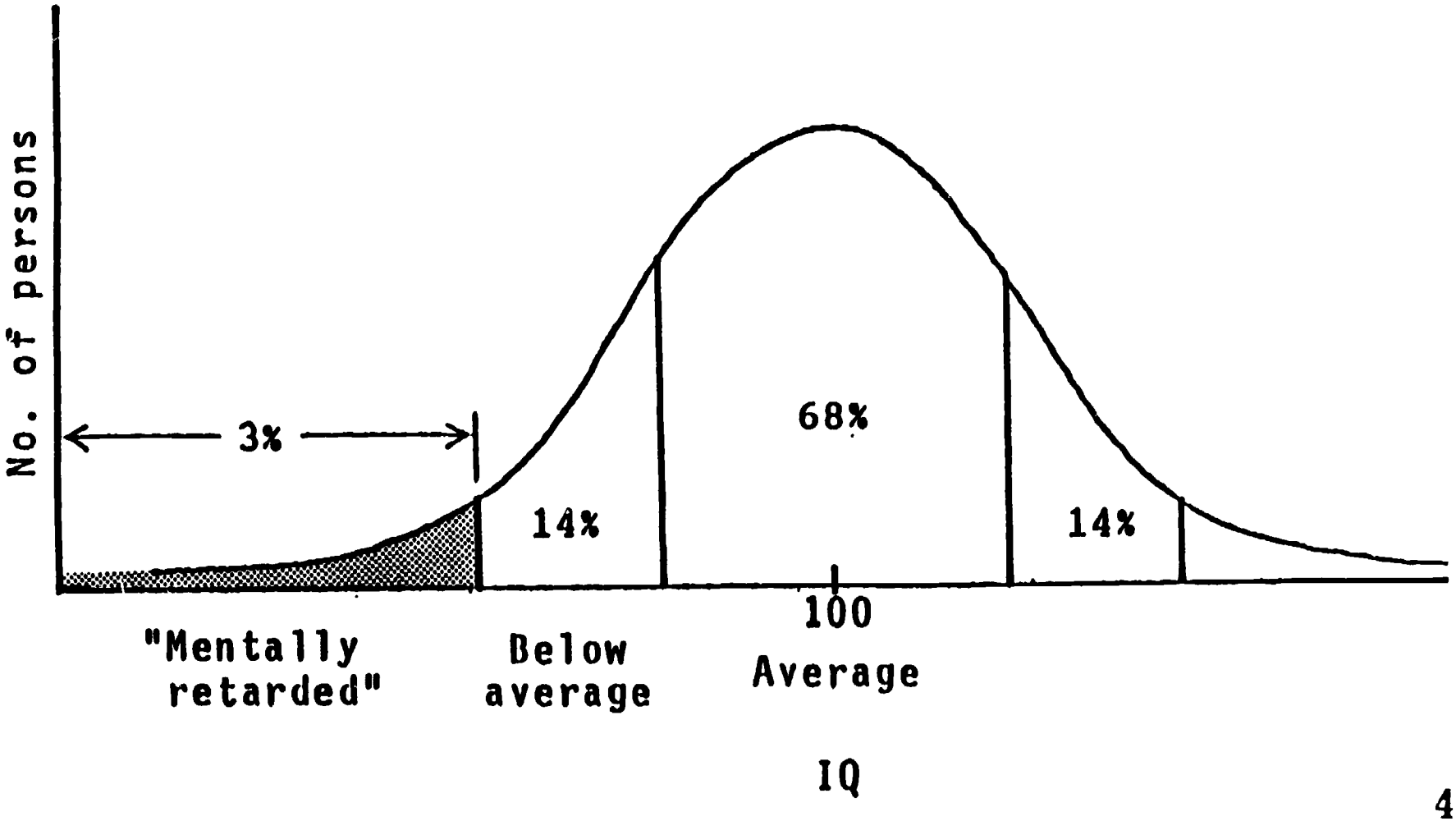
Slight	27 to 40 dB
Mild	41 to 55 dB
Moderate	56 to 70 dB
Severe	71 to 90 dB
Profound	91 dB or more

"Hard of hearing" ↓ "Deaf"

DEGREES OF RETARDATION

Traditional Terms	Current Terms
"Educable" mentally retarded (EMR)	Mildly retarded
"Trainable" mentally retarded (TMR)	Moderately retarded
	Severely retarded
	Profoundly retarded

Prevalence of Mental Retardation



Dimension	Behavior Traits
CONDUCT DISORDER	Disruptive acts Fighting Destructiveness Tantrums Irresponsible behavior Defiance of authority Quarrels Attention seeking
PERSONALITY DISORDER	Feelings of inferiority Social withdrawal Anxiety Crying Chronic depression
IMMATURITY	Short attention span Clumsiness Passivity Preference for younger friends Chewing objects Furtive stealing Picked on by others
SOCIALIZED DELINQUENCY	Bad companions Gang activities Cooperative stealing Truancy Staying out late at night Strong allegiance to peers

T-6

T-7

Social Skill Deficits

Getting along with others

Unrealistic expectations

Excessively dependent

Academic Skill Deficits

Language

Reading

Computation

T-8

School Failure

Grade retention

Enrollment in many schools

Drop-out or expulsion

No diploma or G.E.D.

T-9

Relation of LD Youths and Delinquency:

Susceptibility

Compensation

Labeling

Differential treatment

Well-designed

Correctional Education Programs:

Functional assessment

Functional curricula

Vocational skills

Transitional services

Services to handicapped

Staff development

OBJECTIVES FOR MODULE #2

1.0 Functional definitions of exceptionality

After completion of this module, the participant will be able to:

1.1 Identify the characteristics of exceptional learners.

1.2 Identify the most important/common characteristic of each category: speech/language disorder, sensory impairments, physical impairments, mental retardation, behavioral disorder/emotional disturbance, learning disability.

1.3 Differentiate necessary functional skills from other learning tasks.

2.0 Characteristics of incarcerated individuals

2.1 Name groups which are overrepresented in corrections populations.

2.2 State social skill deficits frequently displayed by incarcerated individuals.

2.3 State academic skill deficits frequently displayed by incarcerated individuals.

2.4 Describe evidence of the school failure among incarcerated adults and youth.

2.5 Identify family problems characteristic of a disproportionate number of offenders.

2.6 Identify the theory which best accounts for the overrepresentation of learning disabled youth among juvenile delinquents.

3.0 Issues in the education of incarcerated individuals

3.1 State the degree to which handicapped juvenile offenders receive the special education they require.

3.2 Identify the characteristics of adult learners.

3.3 Identify the occasions when incarcerated individuals need transition services.

CASE STUDY H-2

PROBLEMS IN THE DIAGNOSIS OF LANGUAGE DISORDER

Charlie G., age 5, was brought to a child-guidance clinic by his parents because they could no longer tolerate his extremely aggressive behavior. Charlie, they complained, would frequently attack other children without provocation and would hit his parents when they attempted to control him. They had tried spankings and other forms of punishment, but Charlie persisted in violent temper outbursts. Apart from his aggressive behavior, however, Mr. and Mrs. G. felt Charlie was developing well, and they were particularly proud of his physical agility which, upon probing, appeared to be more accurately described as hyperactivity.

Charlie was a handsome, well-built youngster who accompanied the psychologist willingly at their first meeting. However, the examiner was immediately taken aback by the fact that Charlie's speech was barely understandable, a fact that the parents had not even remotely implied. Charlie's articulation was quite infantile, and it took some time for the examiner to be able to penetrate his halting, lisping speech and cluttered language. After several sessions during which the psychologist became more accustomed to Charlie's speech and able to understand some of it, it was still difficult to comprehend Charlie's idiosyncratic use of words.

Consultation with a speech pathologist and intensive review with the parents of Charlie's developmental history confirmed diagnostic suspicions. A speech pathologist conducted an independent diagnostic study and was able to determine that Charlie had little comprehension of language and was merely parroting words. The speech pathologist was unable to specify the causal factors involved in Charlie's infantile articulation patterns, but there was no doubt that Charlie exhibited an aphasic disorder of moderate severity. The parents had, apparently, assumed that infantile speech was Charlie's only communication problem and that he would outgrow it.

Review of Charlie's developmental history with the parents revealed that he had had a serious accident at about age 3. He had fallen off a second-story porch while riding a tricycle and suffered a concussion, though no bones were broken and the parents had not noticed significant changes in his behavior afterward. They had not mentioned the incident during initial interviews because they felt the incident reflected badly on them as parents and were embarrassed by their "neglect."

Psychological testing confirmed the diagnostic suspicions of the speech pathologist and indicated that Charlie experienced problems in concept formation as well as understanding and using language. The parents' description of Charlie's accident further supported diagnostic conclusions: Charlie was suffering from central nervous system damage sustained during his fall from the porch. The language disorder was a result of this injury, as was the explosive violence that caused the parents to seek help in the first place. Charlie's hyperactivity was another manifestation of the injury.

The diagnostic study eventuated in special educational placement for Charlie along with ongoing speech therapy and psychotherapy. Mr. and Mrs. G. were seen in regular meetings with a psychologist to assist them in understanding and managing Charlie's behavior and to try to relieve some of the guilt they felt as a result of Charlie's accident and resultant developmental problems.

While Charlie's initial school adjustment seemed to be good, the parents terminated their meetings after a few months. Attempted follow-up after 18 months revealed that the parents had divorced, and Mrs. G. had moved to a different city with Charlie. No further information was available on Charlie's development.

FROM SURAN, B. G., & RIZZO, J. V. (1979). Special Children: An integrative approach. Glenview, IL: Scott, Foresman & Co.

Degrees of Hearing Impairment

When hearing is formally tested, the examiner exposes the child to sounds at different levels of intensity and frequency. The device which generates these sounds is called an **audiometer**, and the child's responses are recorded on a chart called an **audiogram**. The test seeks to determine how loud each sound must be before the child is able to hear it. A child with a hearing impairment does not begin to detect sounds until a high level of loudness—measured in decibels—is reached. For example, a child who has a 60 dB hearing loss cannot begin to detect a sound until it is at least 60 dB loud, in contrast to a child with normal hearing, who would detect the same sound at a level between 0 and 10 dB. To obtain a hearing level on an audiogram, the child must be able to detect a sound at that level at least 50% of the time.

An individual's hearing impairment is usually described by the terms *mild*, *moderate*, *severe*, and *profound*, depending upon the average hearing level, in decibels, throughout those frequencies most important for understanding speech (500 to 2,000 Hz). Table 7.1 presents the decibel levels associated with these degrees of hearing impairment, and lists some likely effects of the hearing impairment upon children's speech and language development and considerations for educational programs.

TABLE
Effects of hearing impairments

Faintest Sound Heard	Effect on the Understanding of Language and Speech	Probable Educational Needs and Programs
Slight 27 to 40 dB	• May have difficulty hearing faint or distant speech. • Will not usually have difficulty in school situations.	• May benefit from a hearing aid as loss approaches 40 dB. • Attention to vocabulary development. • Needs favorable seating and lighting. • May need speechreading instruction. • May need speech correction.
Mild 41 to 55 dB	• Understands conversational speech at a distance of 3 to 5 feet (face to face). • May miss as much as 50% of class discussions if voices are faint or not in line of vision. • May have limited vocabulary and speech anomalies.	• Should be referred to special education for educational follow-up. • May benefit from individual hearing aid by evaluation and training in its use. • Favorable seating and possible special class placement, especially for primary age children. • Attention to vocabulary and reading. • May need speechreading instruction. • Speech conservation and correction, if indicated.

FROM HEWARD, W. L., & ORLANSKY, M. D. (1984). EXCEPTIONAL CHILDREN (2nd Ed.). Columbus, OH: Charles E. Merrill, pp. 234-235.

H-3

TABLE (continued)

Faintest Sound Heard	Effect on the Understanding of Language and Speech	Probable Educational Needs and Programs
Moderate 56 to 70 dB	• Conversation must be loud to be understood. • Will have increasing difficulty with school group discussions. • Is likely to have defective speech. • Is likely to be deficient in language use and comprehension. • Will have limited vocabulary.	• Will need resource teacher or special class. • Should have special help in language skills, vocabulary development, usage, reading, writing, grammar, etc. • Can benefit from individual hearing aid by evaluation and auditory training. • Speechreading instruction. • Speech conservation and speech correction.
Severe 71 to 90 dB	• May hear loud voices about 1 foot from the ear. • May be able to identify environmental sounds. • May be able to discriminate vowels but not all consonants. • Speech and language defective and likely to deteriorate. • Speech and language will not develop spontaneously if loss is present before 1 year of age.	• Will need full-time special program for deaf children, with emphasis on all language skills, concept development, speechreading, and speech. • Program needs specialized supervision and comprehensive supporting services. • Can benefit from individual hearing aid by evaluation. • Auditory training on individual and group aids. • Part-time in regular classes as profitable.
Profound 91 dB or more	• May hear some loud sounds but is aware of vibrations more than tonal pattern. • Relies on vision rather than hearing as primary avenue for communication. • Speech and language defective and likely to deteriorate. • Speech and language will not develop spontaneously if loss is prelingual.	• Will need full-time special program for deaf children, with emphasis on all language skills, concept development, speechreading, and speech. • Program needs specialized supervision and comprehensive supporting services. • Continuous appraisal of needs in regard to oral or manual communication. • Auditory training on individual and group aids. • Part-time in regular classes only for carefully selected children.

FROM HEWARD, W. L., & ORLANSKY, M. D. (1984). EXCEPTIONAL CHILDREN (2nd Ed.). Columbus, OH: Charles E. Merrill, pp. 234-235.

LOW VISION

What does a child with *low vision* see? It is difficult for us to know. We may try to obtain some idea of total blindness by wearing a blindfold—but the majority of visually impaired chilren are not totally blind. Even if two children share the same cause of visual impairment, it is unlikely that they see things in exactly the same way. And the same child may see things differently at different times.

We asked a few people with low vision to describe how they see, and here is what they told us:

Have you ever been out camping in a strange place? When it's dark and you're trying to find your way from the tent to the bathroom, and you can't wear glasses or contact lenses—that's like the way I see.

I'm pretty much nearsighted. I can *see* a far object. I mean I know the image is there, but I can't *distinguish* it. I can see a house. It is just a white blob out there. I couldn't tell you what color is the roof trim, or where the windows are. (Heward & Orlansky, 1981)

Put on a pair of sunglasses. Then rub vaseline all around the central part of each lens. Now try reading a book. Or crossing a street.

I never see blackness. . . . If I am looking at a picture, it's not like I see a hole in the middle. I fill something in there, but it wouldn't necessarily be what is really there. That's how I describe it to people—take a newspaper, hold it up, and look straight ahead. Now describe what you see here, off to the side . . . that's what I see all the time. (Heward & Orlansky, 1981)

The following suggestions for teachers of students with low vision were made by the Vision Team, a group of specialists in visual impairment who work with regular class teachers in 13 school districts in Hennepin County, Minnesota.

- ☐ Using eyes does not harm them. The more children use their eyes, the greater their efficiency will be.
- ☐ Holding printed material close to the eyes may be the low vision child's way of seeing best. It will not harm the eyes.
- ☐ Although eyes cannot be "strained" from use, a low vision child's eyes may tire more quickly. A change of focus or activity helps.
- ☐ Copying is often a problem for low vision children. The child may need a longer period of time to do classwork, or a shortened assignment.
- ☐ It will be helpful if the teacher verbalizes as much as possible while writing on the chalkboard or using the overhead projector.
- ☐ A few low vision children use large print books, but most do not. As the child learns to use vision, it becomes more efficient and the student can generally read smaller print.
- ☐ Dittoes can be difficult for the low vision child to read. Giving her one of the first copies, or the original from which the ditto was made, can be helpful.
- ☐ The term "legally blind" does not mean "educationally blind." Most children who are legally blind function educationally as sighted children.
- ☐ Contrast, print style, and spacing can be more important than the size of the print.
- ☐ One of the most important things a low vision child will learn in school is to accept the responsibility of seeking help when it is needed—rather than waiting for someone to offer help.
- ☐ In evaluating the quality of work and in applying discipline, the teacher best helps the low vision child by using the same standards that are used with other children.

Perhaps most important of all, an attitude of understanding and acceptance can help the student with low vision succeed in the regular classroom.

List of suggestions used by permission of Glenda Martin, special education coordinator, Hennepin County, Minnesota.

FROM HEWARD, W. L. & ORLANSKY, M. D. (1984). EXCEPTIONAL CHILDREN (2nd Ed.). COLUMBUS, OH: CHARLES E. MERRILL.

Number of Juvenile Handicapped Offenders by Category (1984)

State	Number Incarcerated	LD	%	BD/EH	%	MR	%	Blind	Deaf	Phys. H/capped	Other
AL	450	20	4	--	--	60	13				220
AK	200	--	--	--	--	--	--	(No statistics)			
AZ	600	60	10	360	60	--	--				
AR	241	23	10	--	--	34	14				1
CA	6,000	400	7	50	1	20	.3	7	7	21	
CO	370	--	--	--	--	1	.2				
CT	123	5	4	90	73	5	4				
DE	223	2	.9	193	87	0	0	0	0	0	11
D.C.	---	20	--	10	--	1	--				2
FL	950	--	--	--	--	--	--	(No statistics)			
GA	848	30	4	50	6	50	6				10
HI	90	19	21	10	11	4	4	0	0	0	1
ID	99	--	--	--	--	12	12				
IL	1,050	--	--	--	--	--	--	(No statistics)			
IN	1,006	0	0	0	0	0	0	0	0	0	0
IA	258	55	21	115	45	2	.7	0	0	0	0
KS	471	11	2	441	94	15	3				
KY	600	--	--	--	--	--	--	(No statistics)			
LA	1,007	22	2	33	3	35	3	0	0	0	50
ME	242	--	--	--	--	--	--	(No statistics)			
MD	1,500	--	--	--	--	--	--	(No statistics)			
MA	304	--	--	--	--	--	--	(No statistics)			
MI	749	27	4	212	28	21	3	0	0	0	0
MN	530	38	7	0	0	0	0	0	0	0	0
MS	400	12	3	--	--	--	--				
MO	307	19	6	27	9	12	4	0	0	0	0
MT	135	--	--	--	--	37	2				
N.C.	550	16	3	92	17	35	16	0	10	20	20
N.D.	90	15	17	4	4	1	1	0	0	0	0
NE	213	--	--	--	--	--	--	(No statistics)			
NV	176	2	1	4	2	0	0	0	0	0	0
NH	107	4	4	20	19	2	2	?	1	1	?
NJ	977	188	19	370	38	2	.2	0	3	0	258
NM	410	--	--	--	--	--	--	(No statistics)			
NY	1,600	215	13	325	20	80	5	0	0	10	25
OH	1,600	229	14	20	.1	252	16	1	2	0	0
OK	268	45	17	20	7	27	10	0	0	0	7
OR	647	121	19	39	6	5	.7	1	6	4	18
PA	603	--	--	--	--	--	--	(No statisitcs)			
RI	136	21	15	44	32	6	4	1	0	0	0
S.C.	580	29	5	63	11	36	6	0	0	--	38
S.D.	145	--	--	--	--	--	--	(Non-categorical)			
TN	811	--	--	--	--	--	--	(No statistics)			
TX	1,830	96	5	75	4	11	.6	0	0	0	5
UT	386	--	--	--	--	--	--	(No statistics)			
VT	10	--	--	--	--	--	--	(Non-categorical)			
VA	1,200	100	8	250	21	85	7	0	2	0	63
WA	1,325	--	--	--	--	(Non-categorical in some institutions)					
W.V.	117	30	26	10	9	35	30	1	0	10	0
WI	490	24	5	113	23	5	1	0	0	0	32
WY	166	10	6	6	4	0	0	0	0	0	0
TOTAL	33,190	(1908+)	8%	(3046+)	13%	(891+)	4%	(11+)	(31+)	(66+)	761

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COMMON PHYSICAL HEALTH DISORDERS OF CHILDHOOD

Name	Diagnostic Description	Important Characteristics
Cerebral palsy	A crippling condition of the neuromuscular system; disorder of movement and posture; central characteristic is neurological motor dysfunction caused by brain damage (birth injury, congenital defect, infection); not a clear-cut syndrome but includes children with a variety of symptoms, such as muscle weakness or involuntary muscle movements.	Brain damage involved in CP may also affect IQ but not inevitably; however, a greater proportion of CP children are mentally retarded than is case with general population; since condition involves brain damage, it cannot be cured, but physical therapy and surgery can improve function.
Epilepsy	A condition of the neuromuscular system involving recurring attacks of loss of consciousness, convulsive movements, or disturbances of feeling and behavior; also known as *seizure* or *convulsive disorder*; caused by as yet undetermined brain damage.	Focus of treatment is the control of seizures; many effective anticonvulsant medications are now available; although many mentally retarded individuals suffer from seizures, the seizures themselves do not seem to cause mental retardation.
Spina bifida	A congenital defect of the spinal column; in its more severe forms, paralysis of lower limbs is virtually inevitable without surgical intervention; condition is evident at birth; most severe form is termed *myelomeningocele*.	Typically involves mental retardation; although the lives of these children can usually be saved by surgery, many such youngsters will have considerable physical and intellectual disabilities.
Muscular dystrophy	A degeneration of the muscles; disease is progressive and grows worse with age.	These children typically require a wheelchair in the normal course of the disease; cognitive abilities are not affected.
Limb deficiencies	Caused by genetic birth defects, amputations due to disease, or accidents.	Mechanical limbs (prosthetic devices) can frequently be fitted, but considerable training in use of limb as well as supportive attitudes are necessary.
Cystic fibrosis	Symptoms include generalized dysfunction of the exocrine glands, very high salt concentrations in sweat, and chronic pulmonary dysfunction with repeated episodes of pneumonia (with severe bouts of coughing); most lethal hereditary disorder of children in U.S.; specific cause unknown; no known cure, and illness is inevitably fatal; many patients, however, survive into adolescence and young adulthood.	These youngsters are encouraged to lead active lives and no physical restrictions are placed on behavior; cognitive development is normal and they typically remain in regular school placement; extensive therapeutic regimen is required in the home; patients frequently feel emotionally inhibited due to mucous excretions, chronic coughing, and breathing difficulty.
Leukemia	A group of diseases characterized by sudden increases of white blood cells in the bone marrow and peripheral blood; most common form of childhood cancer; a decade ago, the disease was considered fatal; recent advances in chemotherapy have made it possible to expect cure or at least long-term leukemia-free survival.	Many children can be treated with drugs on an outpatient basis; others require surgery, radiation therapy, or bone marrow transplantation; fear of death is frequent concern of child and family, even in remission, and an atmosphere of normalcy should be stressed with emphasis on positive aspects of living.
Asthma	Causes unclear; involves both psychological and somatic factors; often described as *psychophysiologic* illness; characterized by difficulty in breathing due to narrowing of airways; involves severe and life-threatening attacks of wheezing; may cause death due to inability to breathe.	Sometimes described as the "vulnerable child syndrome"; breathing attacks are frightening and parents may tend to overprotect the child; drug therapy can be very effective in preventing attacks and aerosol (fine mist spray) can be helpful in controlling attack.
Diabetes	Characterized by an inability to store sugar in the blood due to dysfunction of the pancreas; symptoms include loss of weight, frequent urination, and excessive thirstiness; treatment involves diet management and insulin therapy as needed	With proper management, diabetes can be brought under control; risks involve diabetic coma (excess of sugar in blood causing nausea, abdominal pain, labored breathing) and insulin reaction (lack of sugar causing hunger, sweating, tremors, drowsiness).

FROM SURAN, B. G., & RIZZO, J. V. (1979). SPECIAL CHILDREN: AN INTEGRATIVE APPROACH. GLENVIEW, IL: Scott, Foresman & Co.

John Venn, Linda Morganstern, and Mary K. Dykes have prepared information and checklists which may be useful to the teacher who works with children who use braces, protheses, and wheelchairs in the classroom. Here is a portion of the material on wheelchairs.

Wheelchairs

Wheelchair locomotion is prescribed by a physician for individuals who are unable to ambulate or for those whose ambulation is unsteady, unsafe, or too strenuous. A wheelchair may also be needed by those who can ambulate but cannot rise unassisted from sitting to standing. Those who need crutches to ambulate but have to carry things from one place to another may also require the use of a wheelchair (Hirschberg, Lewis, & Thomas, 1964).

The most commonly used type of wheelchair is made of metal and upholstery and has four wheels. The two back wheels are large and have a separate rim that can be grasped to propel the chair while the two small front wheels are casters that pivot freely. The casters are attached to the wheelchair by a fork and stem assembly that allows them to pivot 360°. Since wheelchairs are fitted to individuals, and not individuals to wheelchairs, the special parts and features are numerous. Such special features include detachable armrests, which are fitted with a locking device to secure them in place; footrests, which often have nylon heel loops to hold the foot on the footrest; leg rest panels to support the leg in proper position; and a folding device that allows the wheelchair to be folded for easier storage (Ellwood, 1971). After it has been decided that a wheelchair is needed, the wheelchair dealer, often in conjunction with a physical therapist, measures the child to insure an individual prescription that will properly fit the child. The dealer also provides instruction in the use and care of the wheelchair.

Recent wheelchair developments include increasing use of lightweight, adaptive wheelchairs as well as motorized wheelchairs. The lightweight chairs are primarily designed for children. Features include such things as a travel chair with a unique folding mechanism that allows it to double as a stroller and a car seat. Accessories include adjustable velcro fasteners for lap belts, pads, attachable trays, and head restraints. In addition, motorized wheelchairs of various designs may be prescribed for individuals unable to propel themselves independently. Wheelchair transporters such as modified golf carts are available for relatively long driving ranges (Peizer, 1975).

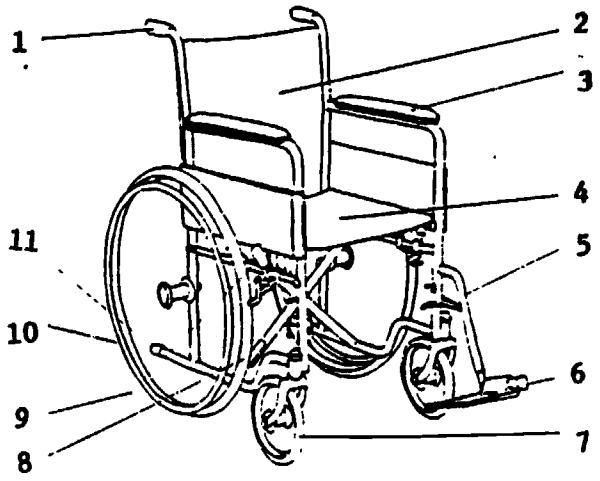
The Role of the Teacher

The primary role of the teacher regarding ambulation devices is daily observation of the student's use and care of his or her equipment. Teachers should keep parents apprised of special problems and needs when they arise. The teacher, along with other special education support personnel, is responsible for designing a barrier-free classroom and also for obtaining the special equipment and materials that will allow the student to participate in classroom activities. In conjunction with the physical therapist and the family, the teacher should develop a program to encourage maximum use of ambulation devices in the classroom, the school, the home, and the community. Therefore, the teacher's role extends beyond the school's boundaries and into the home and the community.

Use of the Checklists

A checklist for use in the classroom is provided to enable the teacher to monitor the condition and function of wheelchairs. The items on each checklist are marked with "yes" and "no" answers. If the device is in proper working condition and fitted correctly, all items should be marked in the "yes" column. "No" answers indicate problems with the device that require attention. A section for comments about specific needs is provided for each item.

The classroom teacher may use these checklists for preliminary evaluations, but should refer the child to a physical therapist for reassessment or request that parents seek physical therapist assistance/reassessment before assuming that his or her (the teacher's) evaluation is correct or referring the child to a specialist.



1. handgrips/push handles
2. back upholstery
3. armrests
4. seat upholstery
5. front rigging
6. footplate
7. casters
8. crossbraces
9. wheel locks
10. wheel and handrim
11. tipping lever

With the student out of the wheelchair	No	Yes	Comments
A. Arms			
1. Are the armrests and side panels secure and free of sharp edges and cracks?			
2. Do the armlocks function properly?			
B. Backs			
1. Is the upholstery free of rips and tears?			
2. Is the back taut from top to bottom?			
3. Is the safety belt attached tightly and not frayed?			
C. Seat and frame			
1. Is the upholstery free of rips and tears?			
2. Does the chair fold easily without sticking?			
3. When the chair is folded fully are the front post sides straight and round?			
D. Wheel locks			
1. Do the wheel locks securely engage the tire surfaces and prevent the wheels from turning?			
E. Large wheels			
1. Are the wheels free from wobble or sideway when spun?			
2. Are the spokes equally tight and without any missing spokes?			
3. Are the tires free from excessive wear and gaps at the joined section?			

Source: (Wheelchair Prescriptions, 1968, 1976)

From Checklists for evaluating the fit and function of orthoses, protheses, and wheelchairs in the classroom by J. Venn, L. Morganstern, & M. K. Dykes, *Teaching Exceptional Children, 11*, 1979, 51–56. Copyright 1979 by The Council for Exceptional Children. Reprinted with permission. Drawing courtesy of Everest and Jennings.

TABLE 5.
Noxious behaviors in aggressive and nonaggressive children.

Noxious Behavior	Description	Average No. of Mins. between Occurrences*	
		Aggressive Children	Nonaggressive Children
Disapproval	Disapproving of another's behavior by words or gestures	7	12
Negativism	Stating something neutral in content but saying it in a negative tone of voice	9	41
Noncompliance	Not doing what is requested	11	20
Yell	Shouting, yelling or talking loudly; if carried on for sufficient time it becomes extremely unpleasant	18	54
Tease	Teasing that produces displeasure, disapproval, or disruption of current activity of the person being teased	20	51
High Rate Activity	Activity that is aversive to others if carried on for a long period of time, e.g., running in the house or jumping up and down	23	71
Negative Physical Act	Attacking or attempting to attack another with enough intensity to potentially inflict pain (e.g., biting, kicking, slapping, hitting, spanking, throwing, grabbing)	24	108
Whine	Saying something in a stuffing, nasal, high-pitched, or falsetto voice	28	26
Destructive	Destroying, damaging, or trying to damage or destroy any object	33	156
Humiliation	Making fun of, shaming, or embarrassing another intentionally	50	100
Cry	Any type of crying	52	455
Negative Command	Commanding another to do something and demanding immediate compliance, plus threatening aversive consequences (explicitly or implicitly) if compliance is not immediate; also directing sarcasm or humiliation at another	120	500
Dependent	Requesting help with a task the child is capable of doing himself; e.g., a 16-year-old boy asking his mother to comb his hair	149	370
Ignore	The child appears to recognize that another has directed behavior toward him but does not respond in an active fashion	185	244

*Minutes between occurrences are expressed as approximations of reported average rates per minute (e.g., for aggressive children's "whine," reported rate per minute equals 0.0360, or approximately once every 28 minutes.

SOURCE: From J. M. Kauffman, *Characteristics of children with behavior disorders*. Columbus, Ohio: Charles E. Merrill, 1977, pp. 188–189, adapted from G. R. Patterson, J. B. Reid, R. R. Jones, & R. E. Conger, *A social learning approach to family intervention. Vol. 1: Families with aggressive children*. Eugene, Ore.: Castalia, 1975, p. 5. Copyright © 1975 by Castalia Publishing Company. Used with permission.

Box 10.1 Normal and Disturbed Behavior

The relationship between normal and disturbed behavior is striking.

> Each of us contains the whole range of emotional health and disease within himself. Our nightmares, if they serve no other purpose, enable us to share the ways in which many psychotics experience life. . . . The sudden loss of temper nearly all of us have experienced gives momentary empathy with the feelings of uncontrollable rage, helplessness, confusion, guilt, and self-hate felt by the child with no impulse control. Most of us have shared a variety of neurotic symptoms: the terrifying fear of something that we know rationally should not in itself cause fear; the magical, protective cloak of knocking on wood, crossing fingers, counting to ten, holding our breath; the compulsive need to get one thing done, no matter how inane or how inconvenient, before we can do something else; the piece of work that can never be finished because it is never good enough. . . . Such illogical behavior does not mean that most of us are neurotic—only that some emotional disorder is as much a part of everyone's life as the common cold. (Long, Morse, and Newman, 1976, p. 1)

That single passage brings home more forcefully than many pages of well-reasoned text the dilemma we face when we try to differentiate between normal and disturbed behavior. Though some behaviors exhibited by emotionally disturbed children are so bizarre and unusual that we do not often find them in normal children, many behaviors are the same for the two groups.

From Cartwright, G. P., Cartwright, C. A., and Ward, M. E. (1981). Educating special learners. Belmont, CA: Wadsworth.

(Citing Long, N. J., Morse, W. C., and Newman, R. G. (1976). Conflict in the classroom: The education of children with problems (3rd ed.). Belmont, CA: Wadsworth.)

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EXHIBIT

INDICATORS OF CONDUCT DISORDERS AND DELINQUENCY PRONENESS

1. Home supervision limited; lack of parental interest or involvement; only one parent in the home; home life characterized by disorganization; conflict between parents; emotional disturbance, criminal behavior, alcoholism, or drug abuse in one or both parents.
2. Socioeconomic deprivation; qualifies for subsidized school lunch or breakfast programs; family receiving public assistance.
3. Dislike of school; problems with school authorities; truancy; history of detentions, suspensions; unexcused absences, class cuts; defiance of teachers; refusal to complete assignments.
4. Difficulties in educational achievement; failure of one or more school subjects; reading below grade level; older than classmates because of grade retentions.
5. Patterns of association with delinquent peers; gang involvement; early use of drugs or alcohol; minor police involvement.
6. Early history of neurological dysfunction or learning disabilities; impulsive behavior patterns; below average to average intellectual ability.
7. Emotional instability; erratic behavior patterns; easily angered; unable to accept responsibility; rigidly independent or overly conforming.

No single characteristic by itself is indicative of a conduct disorder or proneness to delinquent behavior; the more factors present, the greater the probability of chronic behavior disturbance.

Based in part on Powell (1975)

p. 353

FRANK: FROM CONDUCT DISORDER TO DELINQUENCY

Frank was 11 years old at the time of his first referral for psychological services. That referral culminated a series of detentions, suspensions, and a parent conference for unruly school behavior, defiance, stealing, fighting, and truancy. None of the disciplinary measures tried had been successful, and during the parent conference Frank's mother reported that she was unable to control him at home, where he was aggressive and disobedient. In addition to these problems, neighbors reported that Frank had made sexual advances to their daughters and were insisting that the school take measures to control him.

At home Frank's mother had tried, unsuccessfully, to instill some sense of obedience through scoldings and repeated severe spankings. By the time of the referral, however, she had abandoned this approach, since Frank had struck back at her on several occasions. The mother had no support in her disciplinary efforts; Frank's father had abandoned the family 18 months earlier and had not been heard from since. In addition, Frank's mother resented school and neighbor complaints, since these implied that she was not an adequate mother. In fact, this was the case: she took little interest in her children and explicitly rejected Frank because his behavior created problems for her.

The school had little more success in controlling Frank than did his mother, and it appeared that there was no way to control him: punishment made him more resentful, and he felt that school administered rewards and privileges were "baby stuff." Referral to the school psychologist was made in the hope that some keys could be found to reversing the patterns of Frank's behavior.

The psychologist found Frank to be a handsome, well-built youngster. However, this was about all the "information" he was able to obtain, since Frank refused to speak during their meetings together. After three sessions of silence on Frank's part, the psychologist suggested that a long-term psychotherapy relationship might be more effective in helping Frank to become more trusting in another person. Psychotherapy was undertaken by a social worker on the school staff, but despite assurances of confidentiality, Frank refused to speak to him either. In fact, during the first psychotherapy interview, Frank turned his chair toward the wall and did not speak a single word. This pattern persisted through an additional eleven interviews, and therapy was terminated.

There was no change in Frank's behavior as a result of these efforts, and school authorities persisted in disciplinary efforts that had previously been unsuccessful. Thus Frank's school career consisted largely of disruption, punishment, and failure to learn. However, up to the time of graduation from elementary school, Frank managed to avoid problems with the police, and school authorities had little recourse but to live with his behavior.

Both Frank and his teachers were relieved at his graduation. There was little change in high school; typical patterns of truancy, fighting, and the like persisted until, finally, Frank's thefts escalated, and he was apprehended for stealing a car. A second car theft occurred while Frank was awaiting a juvenile court hearing for the first theft, and Frank was referred again for psychiatric evaluation. Frank was more communicative this time and told the psychiatrist to "F—— off." The juvenile court judge saw little alternative but to commit Frank to a juvenile home for a minimum period of two years.

Upon arrival at the boys' home, Frank was explicitly informed by houseparents about their expectations and the consequences of failure to conform to rules. Opportunities were available for earning rights and privileges through a system of earning points for a variety of chores and responsibilities. Privileges included access to television programs, activities, and sports. In addition, group contingencies were also in effect so that peers could lose privileges if they responded to Frank's disruptiveness. The consistent application of clearly stated rules and contingencies rapidly convinced Frank of the advantages of conformity, and disruptive behavior declined. In addition, Frank appeared to form several friendships with other boys, and he was less sensitive to restrictions imposed by houseparents and others.

At this point Frank is still in the boys' home and apparently adjusting reasonably well. Whether such adjustment will persist upon his eventual return to home and community is still questionable.

FROM SURAN, B. G., & RIZZO, J. V. (1979). SPECIAL CHILDREN: AN INTEGRATIVE APPROACH. Glenview, IL: Scott, Foresman & Co. pp. 356-357.

YES, I'M STILL LEARNING DISABLED

Elizabeth Wig

I grew up in a time when we didn't have all the labels that we have now for disabilities. When I look at my life, I realize I had a bona fide learning disability. When I entered the third grade, I was a nonreader. My auditory memory skills had helped me so much that it was impossible to catch me before. Everybody thought I was reading from the page; but I was actually reciting, utilizing other cues such as pictures and getting my buddies to give me the key words that started the sentences. If I got the key word that started the sentence, I could rattle off the rest. But in the third grade they took the pictures away from the readers. I hadn't started to associate text and topics and sentences with page numbers up in the corner. So I was just lost. But reading was not the only problem I had.

I couldn't do math either. My problem is visual-spatial orientation: and when you put a math problem down on paper, the numbers have to be lined up properly. I knew what it meant to subtract, and to multiply and divide: and I could handle it as long as it was verbal—"7 times 7" or "6 times 3." Basically I learned the problems by heart. But once you get past the two-digit numbers and up into the hundreds, all of a sudden you have to put it down on paper. I couldn't place a number that had to be subtracted beneath the column it had to be subtracted from. Nor could I do problems where you have to carry. I couldn't put the carried-over digits in the right place; they hung all over the place. It was impossible for me to do even a simple sum. When they finally found out it was not the basic operations I had problems with, they modified their approach. I was introduced to little grids that helped me set the problems up, and that countered my visual problems just fine.

I went through all kinds of things. I was in a classroom for the mentally retarded for a while. Yet when I look back on the early years, I did not realize how different I was. When I went to nursery school, at age 5, my mother was still dressing me. I didn't know that other kids could dress themselves.

I was constantly in trouble. The teacher would come over to me and I would start singing, because it would make her so mad that I would get thrown out of the room. If I could just get the teacher to expel me from the room, I could fantasize my whole day away. If I started singing when I wasn't supposed to, by 9:15 I could be out of the room. So I had all of the nonadaptive strategies, things kids learn how to do to get out of the mess they're in. And as long as you

From Heward, W.L. and Orlansky, M.D. (1984). Exceptional children (2nd ed.). Columbus, OH: Charles E. Merrill.

can get out of the mess, you can have a modicum of self-esteem.

I still consider myself learning disabled because there are times when I fail because of my problems. As long as there are very specific times when you fail, you still have a learning and perceptual problem.

One example occurred when I was up for my driver's test. I forgot I had to take directions from the policeman. He used "right," and "left," and I didn't know which way to turn. He yelled and screamed at me and took me back and failed me. The second time I went, I told the policeman about my problem head on. I said, "I'm confused when people say 'right' and 'left,' and I know you'll be telling me to turn 'right' and 'left.' Can I paste these letters on my hands?" He said yes. So I stuck big letters on the backs of my hands where I could see them while holding the wheel. By facing my problem head on, I did fine.

It's almost a daily occurrence. When I have to go places, the first few times I cannot find my way. I build in an extra half hour whenever I have to go someplace new. I'm okay on the freeway; but if there's any opportunity for failure, I get lost. I still get lost on campus, because there are parts that aren't familiar to me. To hold a map, you have to know where you are and which way you're facing. I go the wrong way anyway. One time I attended a professional meeting in Las Vegas, and I couldn't find anyplace. By the time I got there, the meetings were always over. I ended up sitting in my hotel room and crying. I went home three days early.

I've learned to overcome failure by knowing where I need support systems. For example, I'm an author who cannot spell. So I have a secretary who knows what my spelling error patterns are. Without her, I cannot write.

When I travel professionally, I don't rent a car because I'd get lost. So if people want me to speak, they have to pick me up. If I must travel by car, I stay in motels right by major roads. Otherwise, who knows if I'll ever get on the road again? I could be driving in the opposite direction. It's happened often.

Support systems are absolutely essential. I make sure I earn enough to pay for my support systems. Early in my career, my payments for support systems were exorbitant in relation to my salary. But I knew I had to pay to succeed.

Anxiety attacks used to leave me exhausted, like when I got lost and had to go back. These days I say, "So what? I can't find it? They're waiting for me. I'll call and they can come and get me." It's easy in the role of success, but it's totally different for young adults on the way up. Once you've "arrived," you can ask those who want things from you to help you. You don't feel so terrible about not always being quite with it.

My self-esteem has grown with every success, but it took me until I was 40 or older until I had reconciled who I was, until I no longer had anxiety attacks and nightmares. Since I reached 40, with every gain toward inner equanimity I have moved ahead. My growth has been tremendous.

Elisabeth H. Wiig is now Professor of Speech Pathology at Boston University. Dr. Wiig is the author of three textbooks, four language assessment tests, and over 50 research articles dealing with language disorders in children and adolescents. She speaks six languages fluently. We are grateful to Dr. Wiig for her willingness to share some of her experiences with us.

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JUVENILE AND ADULT CORRECTIONAL SPECIAL EDUCATION DATA

*AUGUST 1984 SURVEY OF 85 STATE DEPARTMENTS OF CORRECTIONS (JUVENILE, ADULT, COMBINED JUVENILE/ADULT) AND 50 STATE DEPARTMENTS OF SPECIAL EDUCATION.

Table 1

Status of Juvenile Correctional Special Education Programs

State	Juvenile Number Incarcerated	Number of Juveniles in Correct. Education Programs	Percentage of Juveniles in Correct. Education Programs	Estimated Number of Handicapped Juvenile Offenders	Number of Handicapped Juvenile Offenders Served	Percentage of Special Education Students Served	Special Ed. Students Served as a Percentage of the Total Population	Estimated Special Ed. Students as a Percentage of the Total Population
Alabama*	450	365	81%	373	328	88%	73%	83%
Alaska	200	180	90%	25	0	0%	0%	13%
Arizona*	600	500	83%	360	25	7%	4%	60%
Arkansas*	241	241	100%	58	58	100%	24%	24%
California*	6,000	5,100	85%	1,500	500	33%	8%	25%
Colorado	370	370	100%	73	0	0%	0%	20%
Connecticut*	123	123	100%	100	100	100%	81%	81%
Delaware*	223	223	100%	206	206	100%	92%	92%
Florida*	950	950	100%	UK	135	UK	14%	UK
Georgia*	848	848	100%	127	125	98%	15%	15%
Hawaii*	90	83	92%	35	35	100%	39%	39%
Idaho	99	99	100%	12	12	100%	12%	12%
Illinois*	1,050	1,015	97%	450	450	100%	43%	43%
Indiana	1,006	884	88%	UK	0	0%	0%	UK
Iowa	258	252	98%	UK	172	UK	67%	UK
Kansas*	471	471	100%	467	467	100%	99%	99%
Kentucky*	600	521	87%	UK	156	UK	26%	UK
Louisiana*	1,007	926	92%	140	140	100%	14%	14%
Maine*	242	242	100%	85	85	100%	35%	35%
Maryland*	1,500	1,500	100%	234	234	100%	16%	16%
Massachusetts*	304	304	100%	266	201	76%	66%	88%
Michigan*	749	749	100%	260	260	100%	35%	35%
Minnesota	530	527	99%	88	32	36%	6%	17%
Mississippi*	400	400	100%	32	32	100%	8%	8%
Missouri*	307	307	100%	58	58	100%	19%	19%
Montana	135	120	89%	UK	4	UK	3%	UK
North Carolina*	550	550	100%	182	173	95%	31%	33%
North Dakota*	90	90	100%	49	46	94%	51%	54%
Nebraska	213	200	94%	85	0	0%	0%	40%
Nevada*	176	176	100%	UK	6	UK	3%	UK
New Hampshire	107	107	100%	80	54	60%	50%	75%
New Jersey	977	977	100%	824	824	100%	84%	84%
New Mexico	410	410	100%	79	60	76%	15%	19%
New York*	1,600	1,600	100%	655	655	100%	41%	41%
Ohio*	1,600	1,440	90%	491	491	100%	31%	31%
Oklahoma*	268	267	100%	101	101	100%	38%	38%
Oregon	647	520	80%	280	96	34%	15%	43%
Pennsylvania*	603	603	100%	120	20	17%	3%	20%
Rhode Island*	136	94	69%	72	72	100%	53%	53%
South Carolina*	580	580	100%	165	150	91%	26%	28%
South Dakota	145	145	100%	6	6	100%	4%	4%
Tennessee*	811	811	100%	150	150	100%	18%	18%
Texas*	1,830	1,128	62%	178	178	100%	10%	10%
Utah	386	386	100%	UK	0	0%	0%	UK
Vermont	10	10	100%	4	4	100%	40%	40%
Virginia*	1,200	1,200	100%	500	500	100%	42%	22%
Washington*	1,325	1,325	100%	292	UK	UK	UK	22%
West Virginia*	117	117	100%	20	20	100%	17%	17%
Wisconsin*	490	490	100%	145	145	100%	30%	30%
Wyoming	166	155	93%	16	4	25%	10%	10%
Notes. Totals:	33,190	30,681	92%	9,443	7,570	80%	23%	28%

* - Receives P.L. 94-142 monies.

UK - Data either unknown or not provided.

Status of Adult Correctional Special Education Programs

State	Adult Number Incarcerated	Number of Adults in Correct. Education Programs	Percentage of Adults in Correctional Education Programs	Estimated Number of Handicapped Adult Offenders	Number of Handicapped Adult Offenders Served	Percentage of Special Education Students Served	Special Ed. Students Served as a Percentage of the Total Population	Estimated Special Ed. Students as a Percentage of the Total Population
Alabama	10,036	300	3%	UK	UK	UK	UK	UK
Alaska	1,600	1,000	63%	480	0	0%	0%	30%
Arizona	7,000	2,000	29%	2,800	0	0%	0%	40%
Arkansas*	4,200	1,200	29%	196	98	50%	2%	5%
California	44,000	9,500	22%	UK	0	0%	0%	UK
Colorado	3,142	1,389	44%	628	0	0%	0%	20%
Connecticut*	5,350	1,200	24%	UK	300	UK	6%	UK
Delaware*	1,800	450	25%	350	350	100%	19%	19%
Florida	25,396	8,447	33%	UK	UK	UK	UK	UK
Georgia	15,600	9,000	58%	6,240	177	3%	1%	40%
Hawaii*	1,561	350	22%	UK	10	UK	.6%	UK
Idaho	1,140	300	26%	342	UK	UK	UK	30%
Illinois*	15,000	5,640	38%	UK	150	UK	1%	UK
Indiana	9,168	1,802	20%	UK	0	0%	0%	UK
Iowa	2,800	400	14%	UK	0	0%	0%	UK
Kansas*	4,091	560	14%	225	175	78%	4%	5%
Kentucky*	4,621	1,112	24%	UK	47	UK	1%	UK
Louisiana*	10,344	1,346	13%	212	42	20%	.04%	2%
Maine	1,040	219	21%	800	UK	UK	UK	77%
Maryland*	13,000	2,300	18%	300	66	22%	.5%	2%
Massachusetts	5,650	2,000	35%	1,382	350	25%	6%	24%
Michigan*	15,000	4,000	27%	300	200	67%	1%	2%
Minnesota	2,000	829	41%	165	94	57%	5%	8%
Mississippi	4,184	575	14%	52	0	0%	0%	1%
Missouri*	8,194	3,167	39%	360	125	35%	2%	4%
Montana	789	300	38%	UK	40	UK	5%	UK
Nebraska	1,555	370	24%	UK	UK	UK	UK	UK
Nevada	3,413	UK	UK	UK	UK	UK	UK	UK
New Hampshire	496	100	20%	UK	UK	UK	UK	UK
New Jersey	6,538	1,849	28%	5,472	UK	UK	UK	84%
New Mexico	2,034	852	42%	UK	0	0%	0%	UK
New York	33,000	12,000	36%	9,500	UK	UK	UK	29%
North Carolina*	16,470	1,647	10%	300	225	75%	1%	2%
North Dakota	440	70	16%	3	1	33%	.2%	.7%
Ohio	18,000	4,500	25%	6,300	UK	UK	UK	35%
Oklahoma	6,491	1,882	29%	UK	100	UK	2%	UK
Oregon	3,349	907	27%	150	134	89%	4%	4%
Pennsylvania	11,600	3,900	34%	2,320	96	4%	.8%	20%
Rhode Island	1,200	450	38%	785	40	5%	3%	65%
South Carolina*	10,250	1,800	18%	250	135	54%	1%	2%
South Dakota	853	180	21%	43	0	0%	0%	5%
Tennessee	7,555	556	7%	95	0	0%	0%	1%
Texas*	36,000	20,000	56%	1,200	1,200	100%	3%	3%
Utah	1,383	105	8%	UK	0	0%	0%	UK
Vermont	500	250	50%	UK	0	0%	0%	UK
Virginia	9,084	2,385	26%	UK	0	0%	0%	UK
Washington	6,400	1,994	31%	UK	0	0%	0%	UK
West Virginia*	1,520	725	48%	140	66	47%	4%	9%
Wisconsin*	4,000	2,000	50%	190	92	48%	2%	5%
Wyoming*	799	150	19%	10	0	0%	0%	1%
Totals:	399,636	118,158	30%	4[illegible],590	4,313	10%	1%	10%

*eives P.L. 94-142 monies.

Table 3

Status of Teachers in Juvenile Corrections

	Number of Teachers in Correct. Facilities	Ratio of Teachers to Students	Sp. Ed. Certified Teachers in Correct. Facilities	% of Teachers with Sp. Ed. Certification in Correct. Facilities
Alabama	65	1:6	18	25%
Alaska	15	1:8	7	47%
Arizona	30	1:17	18	60%
Arkansas	38	1:6	9	24%
California	350	1:15	50	14%
Colorado	28	1:13	9	32%
Connecticut	22	1:6	12	55%
Delaware	23	1:10	15	65%
Florida	98	1:10	6	6%
Georgia	78	1:11	9	12%
Hawaii	13	1:6	2	15%
Idaho	18	1:6	8	44%
Illinois	100	1:10	21	21%
Indiana	71	1:12	6	8%
Iowa	44	1:6	8	18%
Kansas	75	1:6	75	100%
Kentucky	62	1:8	21	34%
Louisiana	106	1:9	38	36%
Maine	33	1:16	8	33%
Maryland	85	1:18	58	60%
Massachusetts	52	1:6	26	52%
Michigan	113	1:7	84	74%
Minnesota	31	1:8	6	19%
Mississippi	46	1:9	3	7%
Missouri	45	1:7	13	29%
Montana	24	1:5	4	17%
Nebraska	25	1:8	4	8%
Nevada	26	1:7	1	4%
New Hamoshire	14	1:8	3	21%
New Jersey	171	1:6	72	42%
New Mexico	44	1:9	9	20%
New York	225	1:7	40	17%
North Carolina	112	1:5	98	88%
North Dakota	17	1:5	2	12%
Ohio	181	1:8	42	23%
Oklahoma	53	1:5	2	4%
Oregon	38	1:14	9	24%
Pennsylvania	88	1:7	10	11%
Rhode Island	15	1:6	8	53%
South Carolina	73	1:8	7	10%
South Dakota	14	1:10	3	21%
Tennessee	38	1:21	4	11%
Texas	105	1:11	69	66%
Utah	111	1:4	UK	UK
Vermont	1	1:10	1	100%
Virginia	148	1:8	30	20%
Washington	144	1:9	18	13%
West Virginia	14	1:8	4	29%
Wisconsin	67	1:7	16	24%
Wyoming	16	1:10	1	6%
T =	3,405	1:9	987	28%

H-11

The body of knowledge on the subject is just beginning to accumulate, but there are some truisms (we think)

30 things we know for sure about adult learning

by Ron and Susan Zemke

We don't know a lot about the mechanisms of adult learning. At least, not in the "What are the minimum— necessary and sufficient— conditions for effecting a permanent change in an adult's behavior?" sense of knowing.

In that, we're not alone. Dr. Malcolm Knowles came to much the same conclusion in *The Adult Learner: A Neglected Species*. Eight years ago, he equated his efforts to summarize what was then known about adult learning to a trip up the Amazon: "It is a strange world that we are going to explore together, with lush growth of flora and fauna with exotic names (including fossils of extinct species) and teeming with savage tribes in raging battle. I have just made a casing-the-joint trip up the river myself, and I can tell you that my head is reeling." Today Knowles says, "The river is much tamer. We are beginning to understand what we do that works and why it works." But as we listen, we have the distinct impression that what our point man Knowles sees as tame travel can still be white-water rapids for the rest of us.

While there are hundreds of books and articles offering tips and tricks for teaching adults, the bulk of that knowledge is derived from three relatively limited spheres. The first is "My life and times in teaching," wherein one teacher/trainer of adults shares his or her career's accumulation of secrets with others. Though intriguing and interesting, this literature focuses more on teacher survival than anything else, and while we learn much about living, we learn relatively little about learning.

The second common source is the "Why adults decide to study" research. Here we learn some interesting, even fascinating, things about the conditions and incidents that motivate adults to engage in a "focused learning effort." But in most of this research, the adult seems assumed to be a learning machine who, once switched on, vacuums up knowledge and skill. It is more indicative than instructive, suggestive than substantive. A cynic would call this body of knowledge about adult learning a form of market research.

The third source is extrapolation from theory: both adult learning theory and research and that derived from work with children and nonhuman subjects. The adult learning theories in question are really holistic treatments of human nature: the Carl Rogers/Abraham Maslow sort of theory from which we can only infer, or guess at, rules of practice. "Would you rather learn from a lecture or a book?" or "On your own or with direction?" are interesting questions, but ones that beg the issue of results or learning outcomes. A trainee may prefer listening to lectures but learn best by practice and application exercises.

The nonadult theory and research is a broad lot— everything from child development studies to pigeon training. The tendency seems to be to draw guidance from the B. F. Skinner/behavior modification/programmed instruction, and the Albert Bandura/behavior modeling/social learning schools of thought. While both schools are generating research and results, they are still shorter on proven practices than pontification and speculation. No single theory, or set of theories, seems to have an arm-lock on understanding adults or helping us work effectively and efficiently with them.

Still and all, from a variety of sources there emerges a body of fairly reliable knowledge about adult learning— arbitrarily 30 points which lend themselves to three basic divisions:

- Things we know about adult learners and their motivation.
- Things we know about designing curriculum for adults.
- Things we know about working with adults in the classroom.

These aren't be-all, end-all categories. They overlap more than just a little bit. But they help us understand what we are learning from others about adult learning.

Motivation to learn

Adult learners can't be threatened, coerced or tricked into learning something new. Birch rods and gold stars have minimum impact. Adults *can* be ordered into a classroom and prodded into a seat, but they *cannot* be forced to learn. Though trainers are often faced with adults who have been sent to training, there are some insights to be garnered from the research on adults who seek out a structured learning experience on their own: something we all do at least twice a year, the research says. We begin our running tally from this base camp.

1 Adults seek out learning experiences in order to cope with specific life-change events. Marriage, divorce, a new job, a promotion, being fired, retiring, losing a loved one and moving to a new city are examples.

2 The more life-change events an adult encounters, the more likely he or she is to seek out learning opportunities. Just as stress increases as life-change events accumulate, the motivation to cope with change through engagement in a learning experience increases. Since the people who most frequently seek out learning opportunities are people who have the most overall years of education, it ▷

is reasonable to guess that for many of us learning is a coping response to significant change.

3 The learning experiences adults seek out on their own are directly related— at least in their own perception— to the life-change events that triggered the seeking. Therefore, if 80% of the change being encountered is work related, then 80% of the learning experiences sought should be work related.

4 Adults are generally willing to engage in learning experiences before, after, or even during the actual life-change event. Once convinced that the change is a certainty, adults will engage in any learning that promises to help them cope with the transition.

5 Although adults have been found to engage in learning for a variety of reasons— job advancement, pleasure, love of learning and so on— it is equally true that for most adults learning is not its own reward. Adults who are motivated to seek out a learning experience do so primarily (80-90% of the time) because they have a use for the knowledge or skill being sought. Learning is a means to an end, not an end in itself.

6 Increasing or maintaining one's sense of self-esteem and pleasure are strong secondary motivators for engaging in learning experiences. Having a new skill or extending and enriching current knowledge can be both, depending on the individual's personal perceptions.

The major contributors to what we know about adult motivation to learn have been Allen Tough, Carol Aslanian and Henry Brickell, Kjell Rubenson and Harry L. Miller. One implication of their findings for the trainer is that there seem to be "teachable moments" in the lives of adults. Their existence impacts the planning and scheduling of training. As a recent study by the management development group of one large manufacturer concluded, "Newly promoted supervisors and managers must receive training as nearly concurrent with promotions and changes in responsibilities as possible. The longer such training is delayed, the less impact it appears to have on actual job performance."

Curriculum design

One developing research-based concept that seems likely to have an impact on our view and practice of training and development is the concept of "fluid" versus "crystallized" intelligence. R. B. Catell's research on lifelong intellectual development suggests there are two distinct kinds of intelligence that show distinct patterns of age-related development, but which function in a complementary fashion. Fluid intellect tends to be what we once called innate intelligence; fluid intelligence has to do with the ability to store strings of numbers and facts in short-term memory, react quickly, see spatial relations and do abstract reasoning. Crystallized intelligence is the part of intellectual functioning we have always taken to be a product of knowledge acquisition and experience. It is related to vocabulary, general information, conceptual knowledge, judgment and concrete reasoning.

Historically, many societies have equated youth with the ability to insatiably acquire information and age with the ability to wisely use information. Catell's research suggests this is true—that wisdom is, in fact, a separate intellectual function that develops as we grow older. Which leads to some curriculum development implications of this two-facet intellect concept:

7 Adult learners tend to be less interested in, and enthralled by, survey courses. They tend to prefer single-concept, single-theory courses that focus heavily on the application of the concept to relevant problems. This tendency increases with age.

8 Adults need to be able to integrate new ideas with what they already know if they are going to keep—and use—the new information.

9 Information that conflicts sharply with what is already held to be true, and thus forces a re-evaluation of the old material, is integrated more slowly.

10 Information that has little "conceptual overlap" with what is already known is acquired slowly.

11 Fast-paced, complex or unusual learning tasks interfere with the learning of the concepts or data they are intended to teach or illustrate.

12 Adults tend to compensate for being slower in some psychomotor learning tasks by being more accurate and making fewer trial-and-error ventures.

13 Adults tend to take errors personally, and are more likely to let them affect self-esteem. Therefore, they tend to apply tried-and-true solutions and take fewer risks. There is even evidence that adults will misinterpret feedback and "mistake" errors for positive confirmation.

Dr. K. Patricia Cross, author of *Adults As Learners*, sees four global implications for designing adult curriculum in Catell's work. "First, the presentation of new information should be meaningful, and it should include aids that help the learner organize it and relate it to previously stored information. Second, it should be presented at a pace that permits mastery. Third, presentation of one idea at a time and minimization of competing intellectual demands should aid comprehension. Finally, frequent summarization should facilitate retention and recall."

A second neat new idea that impacts curriculum design is the concept of adult developmental stages. Jean Piaget, Lawrence Kohlberg and others have seen children as passing through phases and stages for some time. It is only recently, thanks to Gail Sheehy, Roger Gould, Daniel Levinson and others, that we've come to acknowledge that there are also adult growth stages. A subset of this concept is the idea that not only do adults' needs and interests continuously change, but their values also continue to grow and change. For that insight, we can thank Clare W. Graves and his pioneering work in value analysis. The implications, though still formative:

14 The curriculum designer must know whether the concepts and ideas will be in concert or in conflict with learner and organizational values. As trainers at AT&T have learned, moving from a service to a sales philosophy requires more than a change in words and titles. It requires a change in the way people think and value.

15 Programs need to be designed to accept viewpoints from people in different life stages and with different value "sets."

16 A concept needs to be "anchored" or explained from more than one value set and appeal to more than one developmental life stage.

A final set of curriculum design guides comes from the research on learning media preference. Researchers have for years been asking students if they preferred learning XYZ from a book, a movie experience or another person. Though there are limitations to the value of this sort of data, enough of it is accumulating to be of some help to the design effort.

17 Adults prefer self-directed and self-designed learning projects 7 to 1 over group-learning experiences led by a professional. Furthermore, the adult learner often selects more than one medium for the design. Reading and talking to a qualified peer are frequently cited as good resources. The desire to control pace and start/stop time strongly affect the self-directed preference.

18 Nonhuman media such as books, programmed instruction and television have become popular in recent years. One piece of research found them very influential of the way adults plan self-directed learning projects.

19 Regardless of media, straightforward how-to is the preferred content orientation. As many as 80% of the polled adults in one study cited the need for applications and how-to information as the primary motivation for undertaking a learning project.

20 Self-direction does *not* mean isolation. In fact studies of self-directed learning show self-directed projects involve an average of 10 other people as resources, guides, encouragers and the like. The incompetence or inadequacy of these same people is often rated as a primary frustration. But even for the self-professed, self-directed learner, lectures and short seminars get positive ratings, especially when these events give the learner face-to-face, one-to-one access to an expert.

Apparently, the adult learner is a very efficiency-minded individual. Allen Tough suggests that the typical adult learner asks "What is the cheapest, easiest, fastest way for me to learn to do *that*?" and then proceeds independently along this self-determined route. An obvious tip for the trainer is that the adult trainee has to have a hand in shaping the curriculum of the program.

In the classroom

We seem to know the least about helping the adult maximize the classroom experience. There are master performers in our trade who gladly pass along their favorite tips and tricks, but as Marshall McLuhan observed, "We don't know who discovered water but we can be pretty sure it wasn't a fish." In other words, the master performer is often a poor judge of how one becomes a master performer. There certainly are volumes of opinion and suggestion, but by and large they rest more on theory than data. Ironically, some of the strongest data comes from survey studies of what turns off adults in the classroom. Likewise, there is a nicely developing body of literature on what makes for good and bad meetings that has implications for training:

21 The learning environment must be physically and psychologically comfortable. Adults report that long lectures, periods of interminable sitting and the absence of practice opportunities are high on the irritation scale.

22 Adults have something real to lose in a classroom situation. Self-esteem and ego are on the line when they are asked to risk trying a new behavior in front of peers and cohorts. Bad experiences in traditional education, feelings about authority and the preoccupation with events outside the classroom all affect in-class experience. These and other influencing factors are carried into class with the learners as surely as are their gold Cross pens and lined yellow pads.

23 Adults have expectations, and it is critical to take time up front to clarify and articulate *all* expectations before getting into content. Both trainees and the instructor/facilitator need to state their expectations. When they are at variance, the problem should be acknowledged and a resolution negotiated. In any case, the instructor can assume responsibility only for his or her own expectations, not for that of trainees.

24 Adults bring a great deal of life experience into the classroom, an invaluable asset to be acknowledged, tapped and used. Adults can learn well— and much— from dialogue with respected peers.

25 Instructors who have a tendency to hold forth rather than facilitate can hold that tendency in check—or compensate for it—by concentrating on the use of open-ended questions to draw out relevant trainee knowledge and experience.

26 New knowledge has to be integrated with previous knowledge; that means active learner participation. Since only the learners can tell us how the new fits or fails to fit with the old, we have to ask them. Just as the learner is dependent on us for confirming feedback on skill practice, we are dependent on the learner for feedback about our curriculum and in-class performance.

27 The key to the instructor role is control. The instructor must balance the presentation of new material, debate and discussion, sharing of relevant trainee experiences, and the clock. Ironically, we seem best able to establish control when we risk giving it up. When we shelve our egos and stifle the tendency to be threatened by challenge to our plans and methods, we gain the kind of facilitative control we seem to need to effect adult learning.

28 The instructor has to protect minority opinion, keep disagreements civil and unheated, make connections between various opinions and ideas, and keep reminding the group of the variety of potential solutions to the problem. Just as in a good problem-solving meeting, the instructor is less advocate than orchestrator.

29 Integration of new knowledge and skill requires transition time and focused effort. Working on applications to specific back-on-the-job problems helps with the transfer. Action plans, accountability strategies and follow-up after training all increase the likelihood of that transfer. Involving the trainees' supervisor in pre-/post-course activities helps with both in-class focus and transfer.

30 Learning and teaching theories function better as a resource than as a Rosetta stone. The four currently influential theories— humanistic, behavioral, cognitive and developmental— all offer valuable guidance when matched with an appropriate learning task. A skill-training task can draw much from the behavioral approach, for example, while personal growth-centered subjects seem to draw gainfully from humanistic concepts. The trainer of adults needs to take an eclectic rather than a single theory-based approach to developing strategies and procedures.

To be continued

Study of the adult as a special species of learner is a relatively new phenomenon. We can expect the next five years to eclipse the last fifty in terms of hard data production on adult learning. For now, however, we must recognize that adults want their learning to be problem-centered, personalized and accepting of their need for self-direction and personal responsibility. When you think of it, that's quite a lot to work with right there.

Ron Zemke, research editor of TRAINING, is a Minneapolis-based consultant to the field. Susan Zemke is a human resources officer responsible for supervisory and management training, First Bank System, Minneapolis, MN.

C/SET MODULE: _____ DATE: _____

TRAINER: _____

Please answer the following questions as honestly as you can. Your responses will be used for the following purposes:

1. To assist trainers in evaluating training effectiveness.
2. To assist in planning future training sessions.
3. To assist in revising C/SET training modules.

General Questions (Check One)

1. Was your attendance at the session(s):

___ a. by your own initiative to gain information on the topical areas?

___ b. by your own initiative as respite from the classroom?

___ c. a requirement you felt good about?

___ d. a requirement you would rather not have had?

Comment (Optional): _____

2. Training session(s) were:

___ a. held at a convenient time and day of the week.

___ b. held at a convenient time but not a convenient day of the week.

___ c. held at a poor time but on an appropriate day of the week.

___ d. neither convenient as to time or day of the week.

Comment (Optional)_____

Suggestions for better time and/or day (optional): _____

3. How appropriate was the length of the training session(s)?

___ much too long
___ somewhat long
___ just right
___ somewhat short
___ much too short

Comment (Optional): _____

Specific Questions (Check One)

1. What is your overall reaction to the information presented in the session(s):

___ I see little or no application
___ I might apply it, but first I need more information
___ I might apply it, but first I need more in-situation feedback and support
___ I will apply it; it could result in an increased effectiveness
___ I have applied it and have found it useful
___ I have applied it and have found it to be ineffective

Comment (Optional): _____

2. The information presented was:

___ new and exciting
___ the same old stuff with a different bend
___ nothing new

Comment (Optional): _____

3. The presentor was:

___ knowledgeable and interesting
___ knowledgeable yet boring
___ unsure about the content, yet interesting
___ unsure about the content and boring

Comment: _____

4. Media used in the session(s) was:

___ very effective
___ adequate
___ poor

Comment: _____

_____

Please send completed evaluations to:

C. Michael Nelson, Ed.D.
Department of Special Education
University of Kentucky
Lexington, KY 40506

5. What was the most important learning that resulted from the session(s)?

6. What was disappointing about the session(s)? What did you need or expect to learn that you didn't?

7. What will you do differently in your classes as a result of the training session(s)?

8. Other comments or suggestions: