The program development guide for teachers of trainable mentally retarded (TMR) children and adolescents, 5- to 21-years-old, includes Indiana State guidelines, information on the TMR population, suggestions for instructional programs, evaluation tools, and informational sources. Specified by guidelines are TMR children's right to instruction, eligibility, and such requirements pertaining to program planning as grouping arrangement, class size, or use of paraprofessionals. Defined are mental retardation and the subcategory of the TMR, and briefly described are developmental characteristics of TMR persons. Included for instructional program development are objectives, and discussions on perceptual development, evaluation selection procedures, precision teaching curriculum planning, and such specific instructional areas as music, art, language, and cognitive, and motor development. Approximately 19 evaluative tools, such as checklists, scales, and tests, are described (sources are given). Listed are sources for books on language disorders, equipment and supplies, and records; and given are locations of five instructional materials centers in Indiana; national and state agencies and associations; and periodicals. Additionally supplied is a list of activity curriculum guides (addresses included). (MC)
Local Educational Agency:

MSD Wayne Township

Dr. Sidney Spencer, Superintendent
Mr. Frank E. Cline, Asst. Supt. Curriculum and Personnel

The following staff members are acknowledged for their contributions in developing the handbooks:

Mrs. Ruth Blake, Project Director
Mrs. Rosemary McCart, Asst. Project Director
Dr. Mary Jane John – Emotionally Disturbed, Hard of Hearing and Visually Handicapped
Mrs. Laverne Friend – Physically and Multiply Handicapped
Mrs. Nancy Hard – Trainable Mentally Retarded and Speech and Language Development

A project developed through cooperative finding:

Title I, ESEA
Title II, ESEA
Title III, ESEA
Title VI, ESEA
State Special Education
Vocational Education
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State Guidelines

Commission on General Education

RULE S-I

Special classes and programs to be approved under the provisions of these statutes shall provide instruction for children between 5 and 21 years of age inclusively, who have a physical and/or mental disability which makes regular classroom activity impractical or impossible, and who are not in attendance in any of the residential schools of the state, but who, with the advantage of a special education program, may be expected to benefit from instruction.

ELIGIBILITY

Classes for the trainable mentally retarded. A chronological age range of no more than eight years may be included in a special class. Exceptions to this rule may be requested upon written application to the division of Special Education. Classes may be housed in buildings outside a regular school facility but shall meet minimum standards as approved by the Commission on General Education. An optimum enrollment of 10-13 pupils per class may be approved. Exceptions may be requested when a teacher aide is employed to assist a certified teacher.

A psychological evaluation is required by a licensed school psychologist, school psychometrist, or a mental health or child guidance clinic approved by the Commission on General Education. This evaluation shall include an investigation of mental, physical, social and emotional factors and an assessment of achievement in school subjects.

GUIDELINES FOR COMPREHENSIVE SPECIAL EDUCATION PLANS AS REQUIRED BY CHAPTER 396 – ACTS OF 1969

Guidelines for Planning Trainable Mentally Retarded Programs

1. Population Base Requirement — A total school population base of approximately 11,500 children is needed to serve this category effectively.

2. Joint School Service and Supply Program Requirement — If a school corporation contains fewer than 11,500 children, it must plan to join with other school corporations in a cooperative program.

3. Grouping Arrangement Requirement — Each school corporation must plan to have a minimum of three age-graded classes similar to the following grouping levels:
   a. Primary (ages 6-10)
   b. Intermediate (ages 10-14)
   c. Advanced (ages 14-18)

4. Class Size Requirements — The optimum class size is 13 students (see Rule S-I of the Rules and Regulations of the Commission on General Education).

5. Use of Para-Professionals — The use of para-professionals is recommended as per rules and regulations of the Commission on General Education (in preparation). Classroom enrollments, as stated in section four above, may be increased by 50% when a full-time aide is employed; by 25% when a one-half time aide is employed.

6. Secondary School Program Requirements — It is recommended that coordinated programs at the secondary school-age level (advanced, ages 14-18), be developed between the public schools and Community Center Programs for the Mentally Retarded for the provision of sheltered workshop training opportunities.

7. Housing Options — Programs for the trainable mentally retarded may be housed as follows:
   a. Regular public school buildings
   b. Separate public school buildings
   c. Space within a private facility
Definition

In 1961 the American Association on Mental Deficiency announced its revised operational definition of mental retardation:

"Mental retardation refers to subaverage general intellectual functioning which originates during the developmental period and is associated with impairment in adaptive behavior."

To reduce the error in diagnosis and classification of mental retardation, this definition makes use of a two-dimensional classification:

1) Measured intelligence
2) Adaptive behavior

The measured intelligence dimension is intended for the classification of correct intellectual functioning of the individual as indicated by performance on objective tests designed for that purpose. Adaptive behavior refers primarily to the effectiveness with which the individual copes with the natural and social demands of his environment. It has two major facets:

1) The degree to which the individual is able to function and maintain himself independently, and
2) The degree to which he meets satisfactorily the culturally imposed demands of personal and social responsibility.

As defined by the State of Indiana, trainable mentally retarded children are:

"children with intelligence quotients of approximately 35-55 on either the Revised Stanford Binet Scale or the Wechsler Intelligence Scale for children with a reasonable deviation at either end of the scale."

Rick F. Herber, "A Manual on Terminology and Classification in Mental Retardation"

Characteristics

Approximately 0.3 percent of the population falls into the trainable mentally retarded range of intelligence. The majority of these are retarded due to pathological causes such as brain injury, metabolic disorders and genetic aberrations. They differ from the normal population in many ways. Their weight and height tend to be below average. Motor coordination is usually poor. There is a much higher incidence of visual, auditory and other sensory and physical problems.

As a group, they differ from each other in physical and psychological characteristics. Development is uneven, varying with the individual and from child to child even when IQ and chronological age are identical. Lloyd Dunn, writing in Exceptional Children in the Schools, attempts to describe the behavior of these children. Some are average in activity; some lethargic; many hyperactive. Some are easily excitable and will have a catastrophic emotional reaction to even the slightest pressure or change in routine. Others may be extremely withdrawn, even appear dazed.

Intelectually, the trainable mentally retarded develops between 1/4 - 1/2 the rate of the average child. His speech and language are distinctly limited. At the age of 6 years-3 months, when children are entering first grade, the trainable child is performing intellectually from 1 year-7 months to 3 years-2 months. In adulthood he will perform from about the 4-8 year level. Due to this reduced rate of development, the trainable mentally retarded child will not attain independence from adult supervision. He will require some care, supervision, and economic support throughout his life. Given the necessary training, however, these pupils can learn to help themselves, and to contribute useful service to others.

The Instructional Program

OBJECTIVES

In view of these characteristics, it is felt that the educational program should provide the means of meeting daily life situations and should include preparation for the future in a practical and functional manner.

Placement within a public school program is a limited service. It does not continue indefinitely. When the child reaches a certain age (generally 16-18), alternative placement opportunities are available. The goals of a public school program would therefore include:

1) The maximum development of individual potential
2) Acquisition of independent work skills

It is hoped that this type of approach will help the individual make the best possible adjustment to whatever situation he participates in as an adult.

PERCEPTION

Throughout the entire instructional program, we are constantly dealing with behavior. We observe behavior. We evaluate behavior. We attempt to control, manipulate and change behavior. In order to do these things effectively, we must ask the question, “what determines the behavior of this particular child?”

Perception is defined as, “the ability to perceive objects or other data through the medium of the senses.” According to Valett, this ability includes not only the reception of sensory impressions from the outside world and from one’s own body, but the capacity to interpret and identify the sensory impressions by correlating them with previous experiences.

An association between these two concepts is essential to the development of instructional programs. The child’s behavior is related to his perceptions. It is unwise to think of this as an isolated area of the curriculum, for it directly influences all the child’s experiences.

Trainable mentally retarded children often display obvious impairment in perceptual motor skills. Gross or fine motor coordination may be poor. Visual or auditory problems may impair or even exclude meaningful responses to many sources of sensory stimulation. Learning is distorted due to his inability to receive and interpret information correctly from his environment. In turn, his environment may be distorted as a result of his incorrect responses. We need to have an understanding of what the child “takes in” from his environment and how he processes this information.

In order to correct erroneous responses and maintain correct responses, disabilities must be defined in behavior terms. For example:

Jeanne McRae McCarthy, PhD provides an excellent example in a paper titled “Psychoeducational Diagnosis - A Derivative of Classroom Behavior.” The psychological test may state: Type of Disability – Auditory Decoding (Reception).

Observable Classroom Behavior

- Does not understand what he hears
- Poor receptive vocabulary
- Cannot carry out directions
- Cannot identify sounds correctly

Teaching Techniques

Group

- Use short, one concept phrases
- Ask short questions
- Give visual clues whenever possible – gestures, etc.
- Use visual aids whenever possible

Individual

- Train listening skills
- Increase vocabulary
- Give increasingly more difficult oral instructions and problems
- “Simon Says” kind of games

Gellner has stated that the general defect of intelligence concept governing the attitude toward mental retardation should be replaced by the idea that mental retardation is the result of different kinds of perceptual disabilities. This type of approach would offer valuable guidance to the instructional program.

Many excellent references are available to acquaint the reader with this area. The following list includes books, programmed instructional materials and curriculum guides applicable for use with trainable mentally retarded children.

PERCEPTION – REFERENCES

Kephart, The Slow Learner in the Classroom, Columbus, Ohio, Charles E. Merrill Company, 1960.


This book presents:

- a) basic information needed for understanding the perceptual processes and how they need to be developed in each child.
- b) games and activities for improving perceptual motor skills.

This book was written primarily for parents working with their children on an individual basis, but can be adapted to group situations.)
EVALUATION FOR INSTRUCTION

Selection of appropriate tests for the evaluation of trainable mentally retarded children is extremely difficult. The inconsistencies and limitations of the children and the inadequacy of the testing instruments available raise doubts as to their validity. Never-the-less, in depth knowledge of the child is essential in order to plan a program which best meets his needs. This type of approach is often referred to as diagnostic or prescriptive teaching. It is not a new concept in special education. It is based upon the fact that:

1) All children within a class do not function at the same level.
2) All children within a class do not learn in the same way.
3) All children within a class do not need to learn the same materials.

Knowledge of the child is best attained through a combination of the psychological and medical test battery and systematic and controlled observation of behavior. The psychological test battery can be of most value when used to supplement and guide classroom observations and activities. For a test or observation to be of practical value, it must contribute information in the following ways:

1) Analyze the abilities and disabilities of the child.
2) Serve as a guide for remedial procedures to be used with the child.

Tests have been developed to measure many kinds of cognitive abilities, tolerance of frustration, social maturity, perceptual-motor functioning, etc. The scores obtained, combined with information obtained from careful observation of behavior, furnish the teacher with a basis for selection and organization of classroom materials and activities. The child profits most from a teacher who analyzes the task, his areas of strength and weakness and his methods, and then selects techniques which are individually tailored to him.

Information concerning evaluation tools available for use with trainable mentally retarded children is included within this guide. Refer to the appropriate section.

PRECISION TEACHING

Once an instructional program has been determined, many variables influence the effectiveness of this program. Among these variables are specific behaviors which interfere with the individual’s or the group’s progress. One approach which has been used successfully in changing behavior is PRECISION TEACHING.

This method was developed by Dr. Ogden Lindsey of the University of Kansas. In using this method the concern is directed at helping the child change his behavior toward that which is more desirable.

Behavior change is the primary goal, so we must have an effective means of assessing that behavior objectively. Precision teaching does that.

Precision Teaching is simply:

1. PINPOINTING BEHAVIOR
2. RECORDING BEHAVIOR
3. MANIPULATING BEHAVIOR
4. TRY TRY AGAIN

By following these four simple steps, desirable behavior can be increased or undesirable behavior can be decreased. Desirable behavior which should be increased might be: improved production of speech, keeping shirt buttoned or packing objects back on the shelf after use. Behavior which...
Should be decreased might be screaming, nose-picking, hitting, inattentiveness, etc.

**PINPOINTING BEHAVIOR** means to observe and decide which specific behavior is interfering with the individual's or the group's progress. Specific behavior must be selected to work on. Also remember ONE THING AT A TIME. Some types of behavior such as teaching an individual to walk at a normal gait and avoid what might possibly be called the mongoloid shuffle would need to be broken down into more specific behaviors, such as shortening or lengthening the stride, avoiding walking with toes too far out or too far in, etc. In other words, specific behavior must be pin-pointed.

**RECORDING BEHAVIOR** is very essential to the success of this method. It must be known exactly how often the behavior occurs. This can be done by simply making marks such as /// on a piece of paper, or by using a counter of some sort. The behavior should be recorded on a graph.

The behavior of an individual should be recorded at least ten days in succession to give an adequate picture of how often the individual actually acts in the manner being studied before any manipulation of the behavior is started.

**MANIPULATING BEHAVIOR** means to establish a meaningful consequence following the behavior being worked on. This should be administered by the teacher in such a manner that the individual recognizes that we are not mad at him; rather that we are simply helping him to function in a better way.

A consequence of hitting should be directed as near as possible toward the part of the individual's body which is doing the hitting, namely his hand or arm. A consequence for hitting might be putting the individual's arm in a sling for two or three minutes. A consequence for improved speech production might be giving the individual a piece of candy to eat. Remember, any consequence must be related to the activity by the youngster. In other words, it must be meaningful. Manipulating behavior in this way depends a great deal on the teacher's own ingenuity.

Recording should continue after the manipulation phase has been started. It is very likely to result in the desired increased or decreased behavior. In the case of a child hitting, his behavior might decrease as shown on the graph on page 6.

If the result is not desirable, then either the behavior was not pinpointed or specific enough, recording was not accurate, or the consequence for the behavior was not meaningful to the individual.

The next step is to TRY AGAIN. Research has shown that 85% of all pinpointed behavior can be modified on the very first try. Many times, however, the techniques would have become a failure if the teacher had not tried once more. If one consequence doesn't work, try another.

**Reference:**
Cottage Summer Training Project for Mentally Retarded Youngsters, Lincoln State School, Ill. Dept. of Mental Health. (Modified from a lecture by Dr. Lindsey at the A.A.M.D. Convention in Denver, May, 1967.)

For further information concerning Precision Teaching and Behavior Modification refer to:


**CURRICULUM**

Curriculum is a broad term and can be considered to include all of the experiences given to prepare a child for his role in society. Curriculum for the trainable mentally retarded child should be based upon his potential role in society.

For school purposes, Kirk, in *Educating Exceptional Children,* describes the common behavioral characteristics of trainable children in terms of this potential role in society.

"Has potentialities for self-care tasks and can learn to protect himself from common dangers in the home, school, and neighborhood

Has potentialities for social adjustment in the home and neighborhood and can learn to share, respect property rights, cooperate in a family unit and with neighbors.
Has potentialities for economic usefulness in the home and neighborhood by assisting in chores around the house or in doing routine tasks for remuneration in a sheltered environment under supervision."

Lately, there has been considerable controversy involving the benefits of an academic program for the trainable mentally retarded child. If the curriculum is determined by the abilities and limitations of the child, this will decide the benefit and extent of academic instruction to be included within the program.

The intellectual ability of the trainable child, like any other, is distributed along a continuum. Thus, a developmental program should provide opportunities of instruction for children at all levels on this continuum. We must be careful not to underestimate the abilities of these children. By definition they are definitely limited, but are often capable of much more than is expected of them; both at home and at school. One of the problems is a lack of adequate diagnostic techniques. A combination of etiological factors, home environment, physical handicaps, delayed language, and other developmental lags, specific learning disabilities, and emotional reactions, makes the behavioral assessment and prediction of these children very difficult.

It would be unfortunate, therefore, to prevent a child from receiving instruction solely because a test score and classification of 'trainable mentally retarded' blanketedly recommends NO ACADEMICS in the curriculum. The only blanket recommendation which can be made is – provide an opportunity for the maximum development of individual potential.

The following guidelines may be useful in planning the curriculum of instructional programs for trainable children.

a) Provide a continuum of experiences.

b) Activities should be based upon the child’s present and future needs and be structured within the framework of his abilities and limitations.

c) The program should be flexible and provide experiences consistent with the great differences within each child and the range of abilities within any class.

d) Be practical and realistic when planning the program. Emphasis should be on the type of learning which will be of later use to the individual.

Because of the limited ability of the trainable child, special attention needs to be given to methods and techniques that:

1) Provide learning experiences drawn from the actual daily living situations of the pupils
2) Provide opportunities to apply whatever skills they attain in real situations
3) Emphasize the presentation of concrete materials
4) Involve meaningful drill and repetition
5) Permit the child to solve problems at his own level of functioning
6) Provide for the individual within the group
7) Provide ample opportunity for individualized instruction
8) Emphasize positive reinforcement
9) Build a sense of personal worth in children
10) Encourage cooperative interpersonal interaction

Evaluation of this curriculum must be made on the basis of the goals delineated above and not on a comparison with any other group of children.
PERSONAL AND SOCIAL ADJUSTMENT

Social adjustment refers to the adequacy of the pupil's ability to manage himself and participate with others in all his social experiences. Like all children, he must learn to share, to have consideration for others, to recognize and respect persons of authority, to follow directions, to utilize acceptable manners and appropriate behavior for differing situations. In order to foster personal and social maturity the curriculum must provide opportunities for pupils to learn social expectations appropriate to their developmental level. The goals for this area are to help him become more acceptable to himself, his family, his friends, and the community.

References:

For further information, refer to Curriculum Guides and Bibliography.

SELF HELP SKILLS

A child, or an adult, without the ability to help himself is totally dependent. If our educational goal for the trainable mentally retarded child is semi-independence, then this is certainly a major area of importance. Many trainable children will arrive in classrooms with many evidences of needless dependency—unable to put on or button their coats, tie their shoes, put on their boots, etc. The reason is obvious when we see others doing things for this child that can and should be done by the child himself. Too often it has been assumed that they are not capable of doing these things for themselves; or it has been easier for someone else to do them for him. As he develops more skills in this area, he is better able to lead a more satisfactory personal life and a much less dependent one. Frequently, when parents and other members of the family are relieved from these responsibilities, their attitudes toward him become more positive.

The goals for this area refer to the acquisition of those skills that would otherwise have to be done for him; such as the ability to dress, undress, wash, take care of personal needs, proper eating habits and use of utensils, etc. Self care also includes safety routines for self protection.

References:
Self Help Clothing for Handicapped Children Bare, Boettike and Waggoner National Association for Crippled Children and Adults 2023 W. Ogden Avenue Chicago, Illinois

Also refer to behavior rating scales and general curriculum guides.

LANGUAGE

The growth of language is a critical part of cognitive development. For the trainable child, the major objective is to help him develop the ability to communicate and respond to the communication of others. This is probably the most important means by which he will gain acceptance in and enjoy group situations.

The various stages of language development are as follows:

1. Reflex sounds
2. Babbling
3. Sound experimentation
4. Word using—object naming
5. Phrases
6. Complete sentences
7. Logical sequencing of sentences

The diagnosis of the trainable child's communication difficulties within these stages is often a problem. Careful observation of speech and listening behavior in differing situations, will furnish useful information in estimating present abilities and guiding a language development program.

Experience suggests that the development of verbal skills in the trainable child does not occur simply by "listening" to the speech of others. Far more important are his attempts to respond to their verbal production and rewards for these efforts. In order to do this, it is important for the teacher to encourage interaction between herself and the child as well as interaction among the children.

Materials can be selected that specifically require verbal participation. Others may be adapted to promote verbalization. For example:

1. Colorful pictures
2. Flannel board materials
3. Finger plays and action rhymes
4. Games requiring verbal response
Art materials as language stimulators
Physical action toys as language stimulators
Music activities as language stimulators, etc.

For information concerning the evaluation of language behavior, refer to “EVALUATION” section of this manual.

The following are specific language development programs appropriate for use with trainable mentally retarded children.

TALK—TEACHING THE AMERICAN LANGUAGE TO KIDS

This language program was originally designed for retarded children. It is a linguistic approach based on the hypothesis that organizing the linguistic data will foster the acquisition of language. All children are presented with a morass of linguistic data which consists simply of the language spoken in their environment. From this they must extract a set of rules which will allow them to create sentences. Although there seem to be some regularities in the manner in which the language is presented, the data is tremendous in volume and chaotic in nature if you do not know the rules. The language deficient mentally retarded child generally does not know these rules. TALK organizes the linguistic data so that the child may extract the rules through practice in using them.

We utilized this language program with the trainable groups in the West Central Joint Services Program and found it to be very successful. The information concerning publication is not yet available. Contact Dr. Richard Dever, Division of Special Education, Indiana University, Bloomington, Indiana.

PEABODY LANGUAGE DEVELOPMENT KIT—Primary Level

Level No. 1 of the Peabody Language Development Kit is appropriate for children who are functioning at a mental age of three to five years. The kit stresses an overall oral language development program. It is designed to stimulate the receptive, associative, and expressive components of oral language development.

American Guidance Service, Inc.
Publishers’ Building
Circle Pines, Minnesota 55014

COGNITIVE DEVELOPMENT

The term cognitive development is used here to refer to activities which might be considered “functionally academic” in nature. It includes instruction in specific skills which will permit the child to get the most out of his experiences and be of partial use. For example:

Communication Skills
Quantification Concepts (size, form, numbers, measurement, etc.)
Understanding Relationships
Discrimination Skills (visual, auditory, etc.)

Cognitive development is directly related to a child’s perceptual development. What and How the child sees, touches, senses, and experiences is the basis for this development.

MOTOR DEVELOPMENT

This refers to the ability to more efficiently, and to physically affect and control the elements of one’s environment. Trainable mentally retarded pupils frequently display impairment in either gross or fine motor coordination. The training program, therefore, should provide opportunity for each pupil to participate in activities which make use of both fine and gross motor movements.

Gross muscle control involves movements of the large muscle groups in the whole body as well as the body’s sense of itself in relation to surrounding space. Movements involving gross muscle activity begin randomly and gradually become more directed and refined as the pupil gains experience. The following movements demand gross muscle control:

- rolling over
- standing
- walking
- creeping
- climbing
- hopping
- crawling
- bending
- jumping
- sitting up
- running
- skipping

Fine muscle control involves the use of small muscle groups, especially those in the arms and hands. The child’s dexterity is a result of his ability to coordinate what his hands and arms do and feel with what his eyes see. The pattern of development of motor skills is gross to fine. For example, before a child can control a pencil, he must be skilled in sitting up, grasping, pinching, and making controlled motions with his hand and arm. The following movements involve fine muscle control:

- swiping
- manipulating
- painting
- reaching
- hitting
- coloring
- grasping
- throwing
- writing
- pinching
- threading & lacing

References:
Recreation and Physical Activity for the Mentally Retarded
CEC and American Association for Health, Physical Education and Recreation
1201 16th Street N.W.
Washington, D.C. 20036

Social Perceptual Language
American Association MD October 1965
Edmonson, Jung and Leland

MOTOR DEVELOPMENT – REFERENCES

A Motor Preceptual Development Handbook of Activities for Schools, Parents and Pre-School Programs
CANAC Publications and Resources
Garden Grove, California
ECONOMIC USEFULNESS

This refers to the ability to perform helpful tasks within the individual's immediate and community environment. The approach for the trainable child should be to consistently structure activities to promote the development of greater independence and work skills. As he acquires this independence and learns to make himself useful, his self-confidence is generally enhanced and he becomes more acceptable to those within his environment.

There is no limit to the activities which can be developed for this aspect of the program. It will be determined by the ingenuity of the teacher, available facilities, and the degree of cooperation from others concerned.

Typical examples include:

- House cleaning work, such as dusting, mopping, etc.
- Washing and drying dishes
- Washing and ironing clothes
- Cooking
- Polishing silverware
- Washing cars
- Refinishing furniture, etc.

References for this area include:

- NARC Publications List include items on vocational rehabilitation and sheltered workshop activities.
- Manning and Wood. Homemaking for the EMR Girl. University of Iowa Special Education Curriculum Development Center. Iowa City, Iowa

Most general curriculum guides also contain information concerning this area of instruction.

MUSIC

Music incorporated into the curriculum for trainable mentally retarded children is not only extremely enjoyable, but can be instructional as well. Music provides an opportunity for children to develop feelings of participation and acceptable outlets for expressing their feelings. It provides opportunities for group participation, following directions, sharing and taking turns, dramatizing and developing self-control. It fosters the development of language skills. Activities may be selected for such purposes as: increasing vocabulary, extending attention span, and developing auditory discrimination and memory. Other activities, such as body action songs, clapping, skipping, use of instruments, etc. aid the development of physical coordination and rhythm.

Music is also easily correlated with other subjects and can be used to help make the instruction meaningful and fun. For example: the use of a counting song to help a child learn the meaning of numbers.

Songs selected for trainable children should be simple, with repetition of melody and words. The most valuable aid for successful music experiences in the classroom is not talent. It is enthusiasm. Work for maximum pupil participation and let the children know that you are having a good time. The following references are applicable for use with Trainable Mentally Retarded children.

Music for the EMR: Teacher's Handbook
Special Education Curriculum Development Center
University of Iowa
W 305 East Hall
Iowa City, Iowa 52240
(This guide is compiled to help you incorporate music with other activities through out the day. It contains an excellent bibliography of books, recordings, and audio visual aids.)

(This is a book of simple songs and rhythm that retarded children can enjoy while learning basic lessons.)
Art is a versatile aspect of the curriculum which can be adapted to meet the needs of every child. The media and activities may be selected for reasons ranging from pure pleasure to instructional. Since much that we learn comes through our eyes and our hands, when added to the curriculum on a regular basis, art activities may be a potent tool for learning. Concepts like "soft and rough" mean very little until we have experienced them by petting a kitten or handling sandpaper. Once a child has worked with clay, it may be easier to remember the names of the shapes that he has made. Art activities may also be a source through which children develop cooperative work habits, self-confidence, personal satisfaction, etc. The following references have been found very helpful for planning instructional activities for trainable mentally retarded children in this area.

Art Guide for Teachers of Exceptional Children
College Book Store, Northern State College
Aberdeen, S. Dakota 57401

Art Integration: A Teaching Program for the Mentally Retarded
University of Iowa
W 305 East Hall
Iowa City, Iowa 52240

A Curriculum Guide in Arts and Crafts for the EMR
State Department of Education
Augusta, Maine 04330

A Program of Art Activities for the Young Retarded Child
At Home
Tuchen and Seabury
Publications No. 589
Division of Mental Hygiene
State House, Boston, Mass.

Art Education Curriculum for the Mentally Handicapped
Milwaukee, Wisconsin: Cardinal Stritch College (This guide is in the process of being revised.)

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**Evaluation Tools**

**PURDUE PERCEPTUAL-MOTOR SURVEY**

This survey consists of 22 observations for evaluating motor performance and its relation to perceptual development. The scale presents activities designed to elicit behavior indicative of abilities in the area of balance and posture, body image and differentiation, perceptual-motor matching, ocular control and form perception. Scores assigned to the performance are a reflection of adequacy in perceptual-motor-behavior. The resulting profile may be used in determining the area or areas in which training should be concentrated.

**OBSERVATIONS OF BASIC MOTOR AND VISUAL MOTOR MOVEMENTS**

These checklists are also a procedure for evaluating motor performance and its relation to perceptual development. They test for the same behavior as in the perceptual-motor survey but are much simplified. The checklist presents activities which allow for the observation and analyses of the child's performance. No scoring is necessary. The behavior reflected in the activities will determine the child's motor and visual-motor deficits. Comments: These checklists are more suitable for use by the teacher who has not yet had the experience of observing behavior in performance on the Perceptual-Motor Survey. They may be found in:

Chaney and Kephart, Motoric Aids to Perceptual Training
Columbus, Ohio
Charles E. Merrill Publishing Company, 1968.}

This book is an excellent source of reference for diagnostic-prescriptive teaching with trainable mentally retarded children.
TRAINABLE MENTALLY RETARDED PERFORMANCE PROFILE

This profile was developed by classroom teachers of severely and moderately retarded children. It attempts to answer the question, "What is the present functioning of this pupil?" in the areas of self care, socialization, communication, basic knowledge, practical skills, and body usage. It may be useful in guiding the development and evaluation of a sequential program for the child.

DiNola, Kanusky, Sternfield, Reporting Service for Children
563 Westview Avenue
Ridgefield, New Jersey 07657, 1968

INDIVIDUALIZED DIAGNOSTIC TEACHER'S GUIDE FOR TRAINABLE MENTALLY RETARDED

This guide consists of a list of specific skills which, it is felt by the publisher, should be taught a trainable retarded child. It is an attempt to provide the teacher with a device which would be useful in the preparation of the instructional program for trainable mentally retarded students.

The order of this material has been arranged to fit that of the curriculum guide developed by the Bay Area Counties and the classroom prescriptions published on 5x8 cards. This is an interlocking set of three tools: a basic course of study; a set of behavioral objectives; and a set of suggested teaching activities to reach those objectives.

Published by: Alameda County School Department
224 West Winton Avenue
Hayward, California 94544

CURRICULUM FOR TRAINABLE MENTALLY RETARDED

This guide consists of a list of specific skills which represent both present level of functioning and individual instructional goals for each child. It includes the areas of: self care and self help skills, social adjustment, social competence, economic usefulness, homemaking, woodworking, gardening, physical training, language development, music, arts and crafts.

The goals for this program are individualized personal attainment in development of independent activities in a sheltered environment, with emphasis on acceptable social behavior within the range of the mental ability of the individual.

Gump School Trainable Program
Tucson School District Number One
Tucson, Arizona

INDIVIDUAL EDUCATIONAL SURVEY

This manual is called the Educational Systems Survey. It is an attempt to locate general areas of abilities and skills which are related to school achievement and adjustment.

The areas of abilities included should provide some specific information concerning the behavioral and learning needs of the child. The objective of this survey is to evaluate both the deficits and assets of a child in order to better understand his needs. Look at specific behavioral and developmental functions and see the relationships between these areas.

Published by: Jack Fadely
Bureau of Clinical Services
Dept. of Educational Psychology
College of Education
Butler University
Indianapolis, Indiana

May be purchased from the Butler University Bookstore.

DEVELOPMENTAL TEST OF VISUAL PERCEPTION

This test establishes a child's level of performance in five areas of visual perception.
- Visual-Motor Coordination
- Figure-Ground Perception
- Perceptual Constancy
- Perception of Position In Space
- Perception of Spatial Relationships

The test is based on an investigation of the development of visual perception in healthy and in neurologically handicapped children. It is appropriate for use with mentally retarded children.

Follow-up procedures are available which correspond with the results of the test.

The Frostig Program for the Development of Visual Perception is the remedial follow-up procedure recommended. This program is designed to strengthen the areas of weakness located in the test.

The following scales may be useful in evaluating adaptive behavior:

VINELAND SOCIAL MATURITY SCALE

This is a check list designed to measure successive stages of social competence, from infancy to adulthood. It provides a definite outline of detailed performances in respect to which children show a progressive capacity for looking after themselves and for participating in those activities which lead toward greater independence. The items on the scale are arranged in order of difficulty. Each item is designed to represent some particular aspect of the ability to look after one's own practical needs in the following areas: self-help, self-direction, locomotion, occupation, communication and social relations. This may be used for reference in constructing a sequential program for the Trainable Mentally Retarded.

E. A. Doll
Vineland Social Maturity Scale
Manual of Directions
Circle Pines, Minnesota
Educational Test Bureau, 1965
CAIN-LEVINE SOCIAL COMPETENCY SCALE

This scale was developed for use with trainable mentally retarded children. It provides a method of assessing the social competence of children with a chronological age of 5-13 years. The four subscales measure self-help, initiative, social skills, and communication. The rating scale is based upon information obtained from parents.

L.F. Cain, S. Levine. F.F. Elzey
Manual for the Cain-Levine Social Competency Scale
Palo Alto, California
Consulting Psychologists Press, 1963

ADAPTIVE BEHAVIOR SCALE

The Adaptive Behavior Scale is a behavior rating scale for mentally retarded and emotionally maladjusted individuals. It is designed to:

1) Provide objective description and assessment of an individual's effectiveness in coping with the natural and social demands of his environment.

2) Give a description of the way the individual maintains his personal independence and daily living and of how he meets the social expectations of his environment.

The Adaptive Behavior Scale consists of two parts. Part I is designed to assess the individual's skills and habits in ten areas considered important to the maintenance of personal independence in daily living. Part II is designed to provide measures of maladaptive behavior related to personality and behavior disorders. This scale may be used:

1) To identify the areas of deficiencies the individuals or groups have in order to facilitate accurate placement and proper assignment of curriculum and training programs.

2) To provide an objective basis for the comparison of an individual's ratings over a period of time to evaluate the suitability of his current curriculum or training program.

Adaptive Behavior Scale Manual
Nihira, Foster, Shellhaas, Leland. AAMD
5201 Connecticut Avenue, N.W.
Washington, D.C. 20015

PRESCHOOL ATTAINMENT RECORD
(Research Edition)

This is a preschool scale of development for ages 6 months through 7 years. It provides an assessment of physical, social and intellectual functions in a global appraisal of young children. Items in the scale are arranged in order of increasing difficulty in the following categories:

Ambulation 
Responsibility 
Manipulation 
Information

Rapport 
Ideation 
Communication 
Creativity

This scale is an expansion of the Vineland Social Maturity Scale. Assessment is completed by means of both interview and observation. This scale is still in the experimental stage, but is supposedly especially useful in cases of:

1) Sensory impairments
2) Speech or language difficulties
3) Emotional disturbance, etc.

E. A. Doll
Preschool Attainment Record
Circle Pines, Minnesota
Education Test Bureau

EVALUATION OF LANGUAGE ABILITIES

It would be ideal if we could assume that teachers and children enrolled in trainable mentally retarded public school programs would receive the help of a qualified language specialist in developing this aspect of the curriculum. Unfortunately, this is generally not the case. The following tests may be used to help:

1) Evaluate the level of a child's language functioning
2) Determine the nature of his disability in this area

UTAH TEST OF LANGUAGE DEVELOPMENT

This test is available in two forms: the direct test form and the informant-interview form. The direct test form is comprised of 51 items and takes about 30-45 minutes to administer. The items were selected from sources such as Gesell, Doll, and Terman and are arranged in order of increasing difficulty. If the examiner feels that the client is not performing as well as he is able on the test items, the original informant interview form of the scale should be used.

Advantages: The test is easily administered and scored.

Disadvantages: Although all items involve language, the results do not yield information concerning the child's understanding or use of syntax and little concerning his understanding and use of vocabulary. Other tests would have to be employed to determine the presence of a language disorder and the nature of that disorder.

PEABODY PICTURE VOCABULARY TEST

The Peabody Picture Vocabulary Test is an untimed individual test, administered in fifteen minutes or less, consisting of a booklet with three practice and 150 test plates, each with four numbered pictures. Items are arranged in ascending order of difficulty, and the subject responds only to the items between his "basal" and his "ceiling." The examiner provides a stimulus word orally as in "Point to man." No verbal response is needed.
ASSESSMENT OF CHILDREN'S LANGUAGE COMPREHENSION (A TLC)

Language delayed children have demonstrable deficits in short term memory. This language scale was designed to determine the number of elements which a child can process as well as the nature of his difficulty. It progresses from one critical element and continues to four critical elements and thus attempts to provide a more precise description of the level at which the child is unable to process lexical items.

Comments: Although this test does provide useful information concerning level of functioning, it does not furnish adequate information about syntax and grammar to guide the development of a language program for the child.

The pictures are in the form of shadows. They are not the best for children with visual perception problems.

ACLC Foster, C., Giddan, J., Stark, J., Consulting Psychologists Press Inc.
577 College Avenue
Palo Alto, California

DEVELOPMENTAL SYNTACTIC SCREENING (SENTENCE SCORING)

This is a method for measuring syntactic development in children's spontaneous speech. The evaluator collects 50 consecutive sentences. (Sequence pictures, stories, etc. may be used to elicit these responses.) These sentences must have a verb and noun or a subject verb relationship.

Comments: This test deals entirely in syntactic elements and is difficult to evaluate. A score is computed, but this score does not provide information necessary to begin working with the child. The child's responses are either correct or incorrect, so it does not give information concerning the "state of development of language forms" the child has reached. It does not measure any of the child's receptive abilities. It is solely a test of expressive abilities. Since the responses must have a verb and noun or a subject verb relationship, this method would not be suitable for a large portion of the trainable mentally retarded population.

Lee, L.
"Developmental Sentence Types: A Method for comparing normal and deviant syntactic development."
Journal of Speech and Hearing Disorders.
31, 311-330 (1966)

MICHIGAN PICTURE LANGUAGE INVENTORY

This is a test of vocabulary expression and comprehension and of language structure expression and comprehension for children four to six years old. It consists of: eighty-five plates of pictures with two or three pictures per plate, manual with instructions, means and standard deviations for boys and girls for expression and comprehension of vocabulary and expression and comprehension of language structure.

Comments: This test is long with complicated instructions, but does provide information concerning: vocabulary, singular and plural nouns, personal pronouns, possessives, adjectives, demonstratives, articles, adverbs, prepositions, verbs and auxiliaries. It could be useful with older trainable mentally retarded children who possess more mature skills. It would be suitable for use with the younger child exhibiting a serious language deficiency.

VERBAL LANGUAGE DEVELOPMENT SCALE

This is a measure of language age for children ranging in age from one month to fifteen years. It is an expansion of the verbal portion of the Vineland Social Maturity Scale. The informant-interview method is used.

Comments: This test yields a language age equivalent based on a child's level of communication. It does not furnish diagnostic information concerning the nature of a disorder—if one is present. It does not furnish adequate information about syntax, grammar, etc. to guide the development of a language program for a child.

American Guidance Service.
Publishers' Building
Circle Pines, Minnesota, 55014
Other recommended sources of information for the teacher interested in the evaluation and treatment of language disorders are:


Finocchiarro, *English as A Second Language: From Theory to Practice*.


Zimmerman, Steiner, Ewatt, *Evaluation of Language in Preschoolers*.

Karnes, Merele, *Helping Young Children Develop Language Skills: A Book of Activities; CEC*.


Language: *A Curriculum Guide for Special Education, Wisconsin State Department of Public Instruction*.

Language Training for the Cerebral Palsied Child at Home, Interstate Pub.

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**RECOMMENDED SOURCES OF EQUIPMENT AND SUPPLIES**

Childcraft Equipment Co., Inc.
155 East 23rd Street
New York, New York

Creative Playthings, Inc.
Princeton, New Jersey -8540

Milton Bradley Company
43 Cross Street
Springfield, Massachusetts

Judy Company
310 North Second Street
Minneapolis, Minnesota 55401

Bowmar
622 Rodier Drive
Glendale, California

Bell & Howell
Audio Visual Products Division
7100 McCormick Road
Chicago, Illinois 60645

Developmental Learning Materials
3505 N. Ashland Avenue
Chicago, Illinois 60657

The John Day Company
257 Park Avenue, South
New York, New York 10010

(Publish teacher and pupil materials for handicapped children.)
LOCAL INSTRUCTIONAL MATERIAL CENTERS IN INDIANA

<table>
<thead>
<tr>
<th>Location of Center</th>
<th>Type of Service</th>
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<tbody>
<tr>
<td>Educational Materials Center</td>
<td>Reference: also inter-library loan in nearby areas</td>
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<td>Indiana State University</td>
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<tr>
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INFORMATION AGENCIES

1) The USOE/MSU Regional Instructional Materials Center for Handicapped Children and Youth offers a question/answer service at no charge within Indiana, Ohio and Michigan. When requesting information from this center, specify:
   1) Type of material desired
   2) Level
   3) Disability area
   4) Curricular area
   This is a valuable resource aid for teachers. Questions and other inquiries about question/answer service should be sent to:
   USOE
   213 Erickson Hall
   Michigan State University
   East Lansing, Michigan 48823

2) The Council for Exceptional Children Information Center
   This is a comprehensive source of information on research, instructional material, programs, administration, teacher education, methods, curriculum, etc. for the field of special education. Specify the type of material desired and you will receive a bibliography of abstracts that represents the Center's complete holdings on the topic. Address requests to:
   ERIC Document Reproduction Service
   National Cash Register Company
   4936 Fairmonde Avenue
   Bethesda, Maryland 20014

RECOMMENDED SOURCES FOR RECORDS

Folkways Scholastic Records
906 Sylvan Avenue
Englewood Cliffs, New Jersey 07632

Children's Music Center
Pico Boulevard
Los Angeles, California 90019
(Catalogue – best records, books, rhythm instruments for exceptional children.)

Special Child Publications
4535 Union Bay Place N.E.
Seattle, Washington 98105
3) Mental Retardation Publications of the Dept. of Health, Education and Welfare

This bibliography consists of publications of the U.S. Dept. of Health, Education and Welfare concerned with mental retardation. They cover a variety of topics of interest to the classroom teacher. Examples: detection—diagnosis—treatment—family—films, etc. The references are arranged under subject headings. A brief description of the contents of the publication and how it may be obtained are included for each entry. Single free copies of this publication may be obtained from the Secretary’s Committee on Mental Retardation. Address request to:
Dept. of Health, Education and Welfare
Office of the Secretary’s Committee on Mental Retardation
Washington, D.C. 20201

4) Superintendent of Documents

There are approximately 25,000 different publications currently available for sale by the Superintendent of Documents. To obtain a listing of available government publications in the area of your particular interest, request a “listing of publications.” This listing is free. These publications include curriculum guides, programs developed in specific areas of instruction, methods, etc. They include quality publications of practical use to the classroom teacher. Some are free of charge. Others require minimal payment to cover the cost of production. Address requests to:
Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402

AGENCIES AND ASSOCIATIONS

National Association for Retarded Children
2709 Avenue “E” East
Arlington, Texas 76011

Indiana Association for Retarded Children, Inc.
752 E. Market Street
Indianapolis, Indiana 46202

Indiana Department of Mental Health
Division on Mental Retardation
1315 West 10th Street
Indianapolis, Indiana

Indiana State Department of Education
Division of Special Education
401 State House
Indianapolis, Indiana

American Association on Mental Deficiency
49 Sheridan Avenue
Albany, New York 12210
or
1601 West Broad Street
Columbus, Ohio

Council for Exceptional Children
NEA 1201 Sixteenth Street N.W.
Washington, D.C. 20006

The National Easter Seal Society for Crippled Children and Adults
2023 W. Ogden Avenue
Chicago, Illinois 60612

National Association for Mental Health
10 Columbus Circle
New York, New York

United C. P. Association, Inc.
321 West 44th Street
New York, New York

National Association of Sheltered Workshops
and Homebound Programs
1522 K Street N. W., Suite 410
Washington, D.C.

Child Study Association of America
9 East 89th Street
New York, New York

National Association for the Education of Young Children
Publications Office
104 East 25th Street
New York, New York 10010

Play Schools Association
120 West 57th Street
New York, New York 10019

PERIODICALS

American Journal of Mental Deficiency (AAMD)
Secretary-Treasurer
P. O. Box 96
Willimantic, Connecticut

Exceptional Children
Council for Exceptional Children
NEA 1201 Sixteenth Street, N. W.
Washington, D.C. 20006

The Training School Bulletin
Vineland State School
Vineland, New Jersey

Education and Training of the Mentally Retarded
Division on Mental Retardation
Council for Exceptional Children
NEA 1021 Sixteenth Street, N. W.
Washington, D.C. 20036
Activity Curriculum Guides

The following general activity curriculum guides have been found appropriate for use with Trainable Mentally Retarded children. They are available on request, from the source listed. Some may require a minimal payment to cover the cost of printing.

**MCARC Curriculum Activities Guide**
Marion County Association for Retarded Children
1319 N. Pennsylvania Street
Indianapolis, Indiana 46202

**An Activity Curriculum for the Residential Retarded Child**
*A Curriculum for the Residential Pre-School Child*
State Department of Health and Social Services
Division of Mental Hygiene - Bureau of MR

Curriculum Guide for Teachers of TMR Children
State School for Retarded Children
Missouri State Department of Education
Jefferson City, Missouri

Guide to Early Developmental Training
Prepared by Wabash Center
Lafayette, Indiana
Communication-Dissemination Center
Butler University
Indianapolis, Indiana

**Curriculum Materials for the TMR**
San Francisco Unified School District
San Francisco, California

We Do It This Way – Trainable Level Resource Guide for TMR
(See Wisconsin Publications Catalog)

An Experimental Curriculum for Young MR Children
Frances Connor Teachers College Series
Teachers College Press
Columbia University
New York, New York

Teacher's Guide for the Trainable Program
Elementary Special Curriculum
Baltimore City Public Schools
Division of Special Education
2304 N. Charles Street
Baltimore, Maryland 21218

Systematic Instruction for Retarded Children:
The Illinois Program
U.S. Dept. of Health, Education and Welfare
Project No. 7-1025
Part I  Teacher-Parent Guide
Part II  Systematic Language Instruction
Part III  Self Help Instruction
Part IV  Motor Performance and Recreation Instruction

A Guide: Programming for Pre-School Retarded Children
Massachusetts Dept. of Mental Health
Community Clinical Nursery School Program
Boston, Massachusetts

A Flexible Guide for Teachers of Trainable Children
Lincoln School
Nutley, New Jersey


Cruickshank, Wm and Johnson, Orville, *Education of Exceptional Children and Youth*, Prentice Hall Inc., 1967


Kephart, *The Slow Learner in the Classroom*, Charles E. Merrill Co., 1960


Programs for the Trainable Mentally Retarded in California Public Schools, California State Department of Education, Sacramento, California, 1966