

ED209797

CURRICULA AND INSTRUCTION FOR YOUNG HANDICAPPED CHILDREN: A GUIDELINE FOR SELECTION AND EVALUATION

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C-140-309

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Printed in the United States of America

May 1981

Convincing evidence that early intervention services are effective in decreasing the need for special education services in later years has resulted in a proliferation of programs for young handicapped learners. Despite this increase in available programs, many children do not have access to the services they need. For this reason, Dr. Edwin Martin, former Acting Assistant Commissioner of the Office of Special Education called upon early childhood educators to "set a goal of education from birth for all handicapped children by the end of the 1980s" (1979, p. 4). These new and expanded programs are likely to serve children who are younger and more severely handicapped. A major concern of educators will be to identify curricula and instructional procedures that effectively foster the development of young children with special needs.

Sorting through programs and selecting procedures to best meet identified needs is not an easy task given the number of programs currently serving young learners. In 1977, Williams and Gotts described curriculum development for the severely and profoundly handicapped as an art rather than a science. There is only minimal evidence (National Diffusion Network, 1979) that the state of curriculum development has changed in the last three years. If early childhood special education is to produce models and curricula that are valid and reliable for replication across settings and populations, then it is both cost-efficient and educationally expedient to examine carefully and evaluate existing programs serving young handicapped children. This paper will examine the theoretical constructs that underlie currently used curricula and suggest guidelines for selecting and evaluating curricula.

Theoretical Foundations of Curricula

Very different child objectives and expectations distinguish preschool programs for moderately and severely handicapped from programs for mildly handicapped children. In the keynote address at the 1979 conference of the Handicapped Children's Early Education Program, James Gallagher suggested that the goals for moderately and severely handicapped youngsters are to help them adapt to a handicap that will always be with them, while the goals for mildly handicapped children are to integrate them with normal children (Note 1). As one might expect, these program and population differences are reflected to some degree in curricula and in instructional strategies. Far more apparent, however, is the eclectic nature of most programs. Staff predilections at a given point in time have often shaped program goals and pedagogy. As personnel have changed and staffs have expanded to include the many disciplines needed to meet the multiple needs of severely handicapped learners, curricula and instructional methodology have changed to reflect the propensities of the various disciplines. Nevertheless, whether a program is analyzed in parts or viewed as a whole, the content and pedagogy can usually be traced to one of three major perspectives that have shaped early childhood special education programs in recent years: diagnostic-prescriptive, Piagetian and behavioral.

Decisions on what to teach a particular child or what curriculum to use in a class are based on staff preferences either for teaching tasks in a developmental sequence or for teaching skills that are most functional for the child at that particular point in time. Two developmental perspectives dominate curricula: the age-related developmental milestones identified by Arnold Gesell and adhered to by diagnostic-prescriptive advocates, and the stage theory espoused by Jean Piaget. The functional perspective is based on the principles and technology of applied behavior analysis and is most frequently traced to John B. Watson and B. F. Skinner. A brief overview of the theoretical perspectives of these three approaches to development and learning will enable educators to evaluate model consistency and the impact of theory on curriculum and measurement strategies.

The Diagnostic-Prescriptive Perspective

The origins of the diagnostic-prescriptive approach to educating children whose development is aberrant in some way can be traced to the work of Arnold Gesell. Gesell studied psychology with G. Stanley Hall, the eminent father of Child Psychology at Clark University. He went on to Yale to study medicine where he stayed for the remainder of his career. In his famous Yale Clinic for Child Development, Gesell adhered to the work of Hall and advocated the role of heredity and maturation in the development of young children. Gesell carefully observed children in his clinic and developed his famous growth norms. His norms were adopted by psychologists, physical and occupational therapists, and educators who needed age reference points for the development of tests, checklists and interview scales.

The diagnostic-prescriptive model is based on the assumption that children's learning deficits can be accurately determined and teaching plans can be devised that will remediate deficits or develop skills that are below the expected achievement level. Theorists have assumed that once perceptual, psycholinguistic, social, cognitive or motor deficits are remediated, the learner will be able to acquire the expected academic achievement skills. The model is a very popular theoretical construct and was considered ideal for the thousands of learning disabled children who were identified during the 1970s. The need to determine probable causes of multiple learning problems in severely handicapped students led to the adoption of the same assessment model that was being used with the mild and moderately handicapped. Professionals used normative developmental information like that found in Gesell's Developmental Schedules and other intelligence measures (i.e., Cattell's Infant Intelligence Scale and the Bayley Scales of Infant Development) and used these as diagnostic measures. These scales were followed by a proliferation of diagnostic checklists that are widely used today for diagnosis and prescriptive programming.

Impact on Curriculum. The diagnostic-prescriptive perspective has produced curricula that stress age-related sequences. In some cases, the emphasis is placed on identifying and remediating a specific deficit that prevents the child from acquiring higher levels of skill; in other curricula, the focus is on placing the child within the curricula sequence and targeting the next higher level tasks without regard for isolated earlier skills that may not yet be mastered.

Age-related skill training provides extensive overviews of month-by-month behavioral changes in infants. Some age-related curricula have been developed from an eclectic base and span broader behavioral domains. For example, the Carolina Infant Curriculum, a component of the Abecedarian Project at the University of North Carolina, Chapel Hill, was developed from several sources but is stratified along a developmental continuum and describes game-like activities used to develop adaptive sets that generate age-appropriate success (Ramey, Collier, Sparling, Loda, Campbell, Ingram, & Finkelstein, 1976). A very recent product from the same center is the Curriculum for Handicapped Infants (Johnson, Jens, & Altermeier, 1979).

Measurement Strategies. Progress is confirmed through pre and posttesting on the instrument or curriculum sequence that served as the basis for diagnosis and possible treatment. In some cases, progress is measured on related instruments in an effort to show that training in the weak area generalizes to similar areas. Among the tests frequently used in this manner are the Bayley Scales, the McCarthy Scales and the Gesell Developmental Scales. These scales are not always appropriately used; for example, a severely handicapped child of 32 months may be reported to be at the two month level, yet the test may not be at all appropriate for a child of that chronological age or with those particular impairments. Recently, investigators have challenged the validity of using mental tests to measure child

progress and to evaluate program progress (DuBose, 1980; Evans, 1975; Haskett & Bell, 1979; Lewis, 1976; Switzky, Rotatori, Miller & Freagon, 1979).

The Piagetian Perspective

From the diary of the Swiss psychologist Jean Piaget, describing the daily antics of his own young children, has emerged a theoretical perspective on child learning that has had a profound impact on developmental psychology and early childhood education. The timing was right: interest had waned in the learning theories espoused by Hull, Thorndike and others, and much of the psychological research at that time was being conducted with rats and was not drawing public attention. Additionally, Americans had become interested in programs for young children from disadvantaged environments. In 1961, J. McVicker Hunt's major book, Intelligence and Experience, described Piaget's work. Piagetian theory slowly but emphatically penetrated the educational world, first with disadvantaged children and later with severely handicapped children.

Several basic tenets dominate the Piagetian theory of cognitive development. Knowledge is constructed through the processes of assimilation and accommodation; construction takes place as the child acts directly on the environment and is mentally active. Three major periods characterize the progression: the sensorimotor stage (birth to 1½ years), the concrete operations stage (1½ to 11 years) and the formal operations stage (11 to 15 years). The affective, social and cognitive aspects of behavior are rooted in the sensorimotor period. Inseparable during the earliest stages of development, these aspects of behavior are easier to differentiate in later stages, though they always remain interactive. Four factors account for the transitions the child makes from one stage to another: maturation, experience of the physical environment, influence of the social environment and equilibration. The child's own activity, intrinsically motivated, determines the transactions made from one level of thought to another (Almy, 1979). The task for teachers in this model is to shape environments in which children will, by initiating exploration, construct knowledge. This is done through direct representation experiences in which the teacher queries students about their plans, intentions, experiences and observations. The teacher cannot simply memorize a procedure, he or she must live it.

Impact on Curriculum. Almy (1979) proposes two major contributions of Piagetian theory to early childhood education. Some programs have drawn on Piaget's experimental tasks to plan activities for children, and others have tried to apply his theory to teaching a particular subject. Stephens (1977) notes two tenets that have been stressed when applying Piagetian theory to curriculum design for the severely and profoundly impaired: (1) a person may be impervious to experiences designed to promote cognitive development if such experiences require thought processes in advance of his or her current level of functioning; and (2) cognitive development proceeds as a person interacts with his or her environment. Thus in designing curricula, one must appraise cognitive development, plan activities that challenge the child to equivalent and slightly more advanced skills, and determine the appropriateness and effectiveness of these activities for skill acquisition.

Curriculum design for severely handicapped infants and toddlers has centered on sensorimotor and initial preoperational skills. Instructional programs, particularly in the areas of cognition and language skill acquisition are based on the sensorimotor assessment sequences designed by Uzgiris and Hunt (1976), while the training of more advanced skills has been drawn from programs by Hohmann, Banet, and Weikart (1979), Kamii and DeVries (1974), Lavatelli (1970a, 1970b), and Sprigle (1970).

Perhaps the most frequently cited programs using a Piagetian based model for instructing severely impaired youngsters are those developed by Diane and William Bricker (1972). D.

Bricker, W. Bricker, Iacino, and Dennison (1976) implemented an educational intervention program based on the work of Piaget called constructive interaction adaptation. Their approach, while having a theoretical base in the cognitive theories of development, derives instructional strategies from a behavioral base. These educators identified the sensorimotor schemes from Piagetian theory, then systematically through behavior modification sought to decrease or extinguish maladaptive behavior and increase or maintain adaptive behavior. This translation of a developmental approach into an operational curriculum is portrayed through a map or lattice that enables the care providers to be aware of both developmental order and the relationship between the various action schemes. It is up to the instructor to identify the precise behavior that will be practiced. The antecedent, movement, and consequence that will change behavior in the desired direction is described by the authors as environmental engineering.

Measurement Strategies. In recent years, investigators have sought ways to measure the skills acquired using Piaget's model. Two measures were specifically designed along these lines: Uzgiris and Hunt's (1975) Ordinal Scale of Psychological Development and the Piagetian Attainment Kit (1975). Others (Dunst, 1978; Escalona & Corman, 1966; Mehrabian & Williams, 1971) have developed techniques for assessing sensorimotor schemes and have shown the relationship between sensorimotor schemes and behaviors assessed on other instruments. Measures involving applied behavior analysis have been used to gather daily data on the acquisition of Piagetian tasks (Fieber, 1977; Robinson & Robinson, 1978) and have focused on criterion behavior within a given scheme.

The Behavioral Perspective

John B. Watson came forth with radical ideas when the field of child psychology needed to rally around a new idea. Watson was a strict environmentalist who believed that individuals differed only in their motivation and that anybody could do anything if they only worked hard enough. His dogmatic assertions and his popular demonstration in which he conditioned fear of a white rabbit in the child Albert made Watson the central figure in the emerging behavioral science movement. Watson eventually left academics and went into advertising, but not before his philosophy found new roots in applied behavior analysis.

The basic premise underlying applied experimental analysis of behavior is that human behavior, like animal behavior, can be controlled and manipulated by environmental factors. Researchers can initiate, accelerate, decelerate or extinguish behavior by manipulating the antecedent event, the instructional strategies or the consequent event. These procedures can be used to control behavior along several dimensions: frequency, duration, latency and rate. Through precise statements of the behavior to be changed, measurement of the behavior, application of precise strategies, measurement of effects, analysis of the effects, implementation of changes in one of the three components if needed, and continued measurement, behavior can be brought under the control of the environment. While originally used to manipulate the behavior of individuals, the procedures can be used effectively to modify group behavior (Lovitt, Guppy & Blattner, 1969; McLaughlin & Malaby, 1971).

Impact on Curriculum. Before applying the technology of the behavioral model, a precise, measurable behavior must be identified. Once the behavior is identified, the focus shifts to the environmental factors and instructional strategies necessary to change that behavior. Thus, the focus of the behavioral model is on the strategy to elicit change rather than on the content of change. A few comprehensive curricula have been designed on this model, including the data-based curriculum of Teaching Research. Other behavioral curricula have focused on particular learning domains.

Guess, Sailor and Baer (1977) pioneered teaching language skills using the stimulus-response paradigm and chose to train in such things as tacts, labels, and verbal-motor sequences. Guess et al. feel that the paucity of developmental data on language-learning progression makes the use of a maturational sequence of questionable value. The stimulus-response paradigm precludes any representation of a cognitive base or a mapping of topographies. The curriculum is completely individualized with emphasis on the quantifiable aspects of antecedents, the behaviors and the consequences.

While it is generally assumed (Haring & Bricker, 1976) that developmental sequences and a developmental model are used to formulate assessment and instruction for a behavioral intervention system, the use of these sequences in this model is not essential. Others have argued (Hogg, 1975; Switzky et al., 1979) that normative developmental sequences cannot provide educational program content for severely handicapped learners. Hogg acknowledges that the patterns of interaction with the environment that have shaped the learning of handicapped children differ from those that have shaped the learning of nonhandicapped children. Switzky and his colleagues advocate the development of an assessment and instructional model unique to severely/profoundly handicapped children. This model will probably focus on the criterion for ultimate functioning in a given ecological setting and will work backwards from that behavior to the prerequisite behaviors that are essential if the criterion is to be accomplished. Among the criterion-based assessment and instruction programs that follow the behavioral model are the Teaching Research Curriculum of the Moderately and Severely Handicapped, Developmental Pinpoints, Uniform Performance Assessment System, and scope and sequence charts and instructional tasks such as the Basic Social Skill Development and Social Acceptability Training Sequence (Carney, Clobuciar, Corley, Wilcox, Bigler, Fleisher, Pany & Turner, 1977).

Measurement Strategies. The measurement of child progress using a behavioral model for program implementation is dependent on daily assessment of behavioral changes. The most appropriate tests are criterion-referenced measures that permit the measurement of performance in relation to a statement of desirable behavior. Some curricula have precisely designed data management systems developed for monitoring progress on curricula objectives. Some of the monitoring systems (see Universal Data Sheet of the West Virginia System, note 2) can be easily applied to other curricula with a similar construct. Measurement and instruction of severely handicapped learners becomes inextricably meshed with the test-teach-test model (DuBose, Langley & Stagg, 1977; Schucman, 1957) and permits the educator-evaluator to assess learners in relation to their previous or future performance under various conditions rather than in relation to the performance of chronological age mates.

This section has described three major theoretical perspectives that have shaped early childhood special education programs. It is important that program personnel have an accordant theoretical perspective on which to base their decisions on "what to teach" and "how to teach," permitting them to be consistent in approach to instruction and nurture. Staff personnel invariably find themselves faced with curricula that vary widely. Indications of these variations can be seen in the curricula listed in the appendix of this chapter.

Evaluating Curricula

Program developers are faced with a myriad of decisions to be made during the initial stages of program planning and implementation. After the program staff has identified the target population, determined its philosophy of development and intervention, and formulated child and program goals, appropriate curricula materials must be selected. By using guidelines

for selecting and evaluating curricula, staff can make decisions that are consistent with their philosophy, their population needs and program needs.

Two sources have raised questions that can be used to guide curricula selection. Parker and Day (1972) proposed a five-dimensional schema for analyzing and evaluating early childhood curricula. While quite comprehensive in the questions asked, this schema was not designed to assess appropriateness for handicapped children. Hayden (1977), particularly concerned about organically impaired infants, posed a valuable set of seven critical questions to use in curricula evaluation. Drawing heavily from these two sources and incorporating some of the concerns addressed in the previous section, the authors propose the following set of questions as guidelines for staff personnel to use in selecting curricula for young handicapped children:

1. Is the curriculum based on a theory of early development and learning? If a particular theoretical perspective has not been identified and, instead, an eclectic approach has been used, are the various perspectives openly acknowledged? In such cases, it is essential to include specific guidelines for instructional strategies, teachers' roles, etc., so that staff understand why they respond as they do and how they can generalize behavior to situations not described.
2. Do the goals of the curriculum complement the existing goals of the program? For example, if one of the program's major goals is the facilitation of parent-child interaction, how are parents included in the curriculum?
3. Can the goals and objectives be assessed? It is important that entry and exit levels be determined so that programs can be individualized and child progress can be measured.
4. Are the objectives designed to accomplish the terminal goals of the curriculum? Evans (1975) points out that a rationale for coordinating immediate and long-term goals is often missing, making empirical evaluation difficult. This question, therefore, is an important one for program evaluators to consider in assessing program validity.
5. Does the curriculum focus on the skill domain that is most critical for the target population? If, for example, the children to be served are deaf or language-delayed, then it is appropriate that the staff select a curriculum that carefully addresses communication needs. While this selection would not preclude inclusion of other skill domains, the staff would want to review strategies the authors have included for facilitating language while addressing other target skills.
6. Are the instructional objectives and activities broken down into small workable statements appropriate for use with the target population? If the young children are severely handicapped, a finely sliced curriculum with several activities and adaptations for each objective might be appropriate. If the children are nonhandicapped or mildly delayed, fewer items for each domain might be necessary. A program that serves a population including children with several types of delays (e.g., deaf, blind, communication-delayed) might require a variety of curricula to develop individualized programs.
7. Are the items developmentally relevant and logically sequenced? A current emphasis in designing assessment and curriculum materials for handicapped children is the inclusion of only those items that are functional (skills that enable a child to perform in the environment). Functional skills should also be taught in a sequence that enables the child to use prerequisite skills and acquire independent behavior based on a learning hierarchy.

8. Does the curriculum include techniques for initiating and sustaining the young child's attention? These techniques are likely to include methods for reinforcing attention and responses, then gradually fading reinforcement as the child acquires the skill and exercises it freely in several settings.
9. Does the curriculum address ways to build and maintain appropriate social interactions between the adult and the child? Learning, whether the child is mildly or severely handicapped, should be as enjoyable for the child and parent or teacher/therapist as possible. Assuring enjoyment requires a curriculum that fosters reciprocity, permitting the child and adult to form a natural and enduring relationship.
10. Does the curriculum allow for skill generalization? As early as 1962, Taba emphasized that transfer occurs through generalization either of content or methods used in learning. Positive transfer, therefore, depends both on how and what an individual learns. Does the curriculum address how learning is to be transferred or generalized? More recently, Brown, Nietupski and Hamre-Nietupski (1976) suggested that skills be taught in reaction to or in the presence of at least three different persons, in three natural settings, in response to three different sets of instructional materials, and to at least three different appropriate language cues.
11. Has the curriculum been tested on the population it was designed to serve? For example, if the curriculum is designed for blind children, has its success been documented with this population? Empirical evidence of curriculum validity and reliability are critical if staff are to be accountable for designing and implementing appropriate educational plans.
12. Does the curriculum include procedures for collecting and recording data as the curriculum is implemented? Is the system adequately described to allow paraprofessionals to use it?
13. Have the authors drawn on the expertise of different kinds of specialists in preparing the curriculum or suggested the guidelines one should use in deciding when to turn to specific professionals?
14. Is the curriculum easy to implement and export? This requires written instructions that are easy to follow and parent, teacher and child expectations that are clearly defined.
15. Does the curriculum allow for formative and summative evaluation of the child's performance and of the curriculum's impact on the entire program? As a critical element in any program, the impact of the particular curriculum must be measured to determine the contribution it makes to the program's success.

Summary

The proliferation of infant programs nationwide has resulted in the concurrent development of curricula as diversified as the developing programs. We have described the basic theoretical constructs underlying most of these curricula, listed some available materials by the target population they are intended to serve, and suggested criteria to be used in selecting and evaluating curricula.

Three theoretical perspectives that have shaped early childhood programs in recent years have been discussed: the diagnostic-prescriptive approach founded on the work of Arnold Gesell; Piagetian theory based on the writings of Jean Piaget; and the behavioral approach

popularized by Watson and Skinner. We have discussed the practical effects of using curricula based on each theory and related them to instructional and measurement strategies.

The large numbers of available curricula make the task of selecting and evaluating curricula a difficult one. To assist program developers in this task, the authors have proposed fifteen guidelines for selecting curricula for young handicapped children.

APPENDIX

Early Childhood Curriculum Materials

Nonhandicapped Infants and Toddlers

- Badger, E. Infant and toddler learning programs. Paoli, PA: Instructo/McGraw Hill, 1971.
- Brazelton, T. B. Infants and mothers: Differences in development. New York: Dell Publishing, 1969.
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- Gordon, I. J. Baby learning through baby play. New York: St. Martins Press, 1971.
- Karnes, M. Small wonder. Springfield, MA, 1979.
- Levy, J. The baby exercise book. New York: Pantheon Books, Random House, 1973.
- Meier, J. H., & Malone, P. J. Facilitating children's development: A systematic guide for open learning (Vol. 1 and 2). Baltimore, MD: University Park Press, 1979.
- Painter, G. Teach your baby. New York: Simon and Schuster, 1971.
- Sparling, J., & Lewis, I. Infant learning games: For the first three years. New York: Walker Educational Book Corp., 1980.
- Sturm, T. M. Carolina developmental program. New York: Walker Educational Book Corp., 1980.
- Tronick, E., & Greenfield, P. M. Infant curriculum: The Bromley-health guide to the care of infants in groups. New York: Media Projects Incorporated, 1973.
- White, B. L. The first three years of life. Englewood Cliffs, NJ: Prentice Hall, 1974.

Handicapped Infants and Preschoolers

- The BCP - Behavior characteristics progression. Palo Alto, CA: Vort Corp., 1977.
- Forsberg, S. J., Nelsworth, J. T., & Laub, K. W. COMP curriculum guide. Pennsylvania State University HICOMP Outreach Project, 1977.

Fredericks, B., Riggs, C., Furey, T., Grove, D., Moore, W., McDonnell, J., Jordon, E., & Manson, W. The Teaching Research curriculum for moderately and severely handicapped. Springfield, IL: Charles C. Thomas, 1976.

Guide to early developmental training. Wabash Center for Mentally Retarded. Rockeigh, NJ: Allen/Bacon, Inc., 1978.

Hawaii early learning profile activity guide. Palo Alto, CA: Vort Corp., 1979.

Infant Stimulation Curriculum. Nisonger Center for Mental Retardation and Developmental Disabilities, Ohio State University, Columbus, OH, 1976.

Johnson, N. M., Jens, K. G., & Altermeier, S. M. The Caroling curriculum for handicapped infants. Chapel Hill, NC, unpublished document, 1979.

Koontz, C. W. Koontz child development program: Training activities for the first 48 months. Los Angeles, CA: Western Psychological Services, 1978.

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Myers, D. G., Sinco, M. E., & Stalma, E. S. The right-to-education child. Springfield, IL: Charles C. Thomas, 1973.

Quick, A. D., & Campbell, A. A. Enhancing lesson plans for preschool developmental progress. Dubuque, IA: Kendall/Hunt Publishing Co., 1976.

Schafer, D. S., & Moersch, M. S. (Eds.). Developmental programming for infants and young children. Ann Arbor, MI: University of Michigan Press, 1977.

Deaf or Hearing Impaired Infants and Preschoolers

Clark, T. C. (Ed.). Project SKI*HI. Ogden, UT: Project SKI*HI, 1975.

Curriculum for young deaf children. Cooperative Research Endeavors in Education of the Deaf (CREED). Bureau for Physically Handicapped Children, State Education Department, Albany, NY, 1971.

Northcott, W. Curriculum guide: Hearing impaired children birth to three years and their parents. Minnesota State Department of Education, Department of Special Education, 1971.

Visually Impaired Infants and Preschoolers

Croft, N. B., & Robinson, L. W. Project vision-up. Educational Products and Training Foundation, Boise, ID, 1977.

Davis, J. A., & Langley, M. B. A guide to developing a classroom curriculum for visually impaired multihandicapped infants. George Peabody College for Teachers, Nashville, TN, 1978.

O'Brien, R. Alive . . . aware . . . a person. Montgomery City Public Schools, Rockville, MD, 1976.

Deaf-Blind Children

A prelanguage curriculum guide for the multihandicapped. The Colorado School for the Deaf and the Blind. Colorado Springs, CO, 1978.

Young Children with Behavior Problems

Baker, B. L., Brightman, A. J., Heifetz, L. J., & Murphy, D. M. Behavior problems. Champaign, IL: Research Press, 1976.

Language Delayed Children

Bricker, D., Dennison, L., & Bricker, W. A language intervention program for developmentally delayed young children. Mailman Center for Child Development, University of Miami, MCCC Monograph Series No. 1, 1976.

Horstmeier, D., MacDonald, J. D., & Gillette, Y. Ready, set, go talk to me. Columbus, OH: Charles E. Merrill, 1978.

Laney, M. D. Talk! talk! talk! Language curriculum for the preschooler. Johnstown, PA: Mafex Associates, 1978.

Motor-Impaired Children

Connor, F. P., Williamson, G. G., & J. M. Program guide for infants and toddlers with neurological and other developmental disabilities. New York: Teachers College Press, Columbia University, 1234 Amsterdam Avenue, New York, NY 10027.

Finnie, N. Handling the young cerebral palsied child at home. New York: E. P. Dutton and Co., 1970.

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The first three years: Programming for atypical infants and their families. New York: United Cerebral Palsy Association, 1974.

Smith, D. K. Motor-academic-perceptual curriculum guide for the early childhood education of the multiply handicapped. Indiana, PA: Arin Intermediate Unit #28, 1973.

Children with Down's Syndrome

Dmitriev, V., Olwein, P., & staff. Developmental Sequence Performance Inventory. Model
Preschool Center for the Handicapped, University of Washington, Seattle, WA, 1980.

Hanson, M. J. Teaching your Down's syndrome child: A guide for parents. Baltimore, MD:
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