FOCUS ON EXCEPTIONAL CHILDREN

THE EARLY EDUCATION OF HANDICAPPED CHILDREN

George Sheperd¹

Throughout its history, special education has been constantly besieged with "new trends" and "panaceas." Some have improved programs for the handicapped, while others have only sidetracked us. However, during the past decade, special education has been participating in one of the most exciting trends in educational history. It was too long in coming, but is gaining momentum with each day. The movement is, of course, the present attention which is now being given to *early education*.

The critical role of early experiences in the total development (cognitive, socialemotional, and physical) of the young child no longer needs to be documented. We no longer need to ask the question, "Does early education produce positive effects?" The answer has been given to us by such investigators as : Hunt (1961), Bloom (1964), Skeels (1966), Kirk (1958), Gray and Klaus (1968), Caldwell and Richmond (1968), Weikart (1967), Bereiter and Engelmann (1966), Nimnicht and Meier (1969), Karnes (1969), and many others. It has been clearly shown that incalculable gains can indeed accrue to the young child and thereby to the entire community by the early and judicious use of appropriate intervention strategies. Today's composite question must be, "Which intervention techniques are best employed with which children, at what point of time, and under what kinds of situations?"

With the prudent use of advancing technology, the possibilities for optimizing the learning environment of young handicapped children are limitless. It is now needless for these children to suffer profound learning failure in the classroom and in every day commerce with their environment.

RATIONALE FOR EARLY EDUCATION

Caldwell (1970) has done an excellent job of establishing a rationale for early intervention, and readers are particularly directed to her article. It gives an extensive review on the historical development of early education.

As stated earlier, a sufficient amount of inferential and empirical evidence has been accumulated so that we accept as a "given" the critical role of early experiences in the total development of the young child. Inferential support can be found in the extensive amount of animal studies (Hebb & Williams, 1946; Thompson & Heron, 1954; Beach, 1966; Hays, 1951) which indicate the period of infancy to be critical in developmental performance ability. Also, the work of such scholars as Hunt (1961) and Bloom (1964) has documented the contribution of early environmental experiences to the development of intelligence: Providing specifics, Bloom stated

© Love Publishing Company, 1971

EARLY EDUCATION FOR THE HANDICAPPED

^{1.} George Sheperd is Associate Professor of Education and Director of the Center for Research and Demonstration in the Early Education of Handicapped Children, University of Oregon.

that "in terms of intelligence measured at age seventeen, about 50 percent of the development takes place between conception and age four, about 30 percent between ages four and eight, and about 20 percent between ages eight and seventeen."

The major contributions to the empirical rationale for early education have been cited as being the work of Skeels and Kirk. Skeels and Dye (1939) described a study conducted in an institutional environment in which infants were either provided care and stimulation by retarded adolescent girls, or were left in unstimulating environments. The experimental children eventually demonstrated an average IQ gain of 28.5 points, while the contrasting children decreased an average of 26.2 IO points. Most impressive, however, was a follow-up study conducted by Skeels (1966) which presented evidence to show that " the two groups had maintained their divergent patterns of competency into adulthood." (p. 54) The experimental children had become productive, contributing members of society, while the other children, for the most part, continued being a costly societal responsibility.

Kirk's (1958) classic study of the value of nursery school experience for young (ages 3-6) retarded children also presented dramatic evidence for early intervention. Although not to the same magnitude as the Skeels data, Kirk also found significant increase-decrease relationship between experimental and control groups with sustained benefit over a number of years.

Many other significant studies could be reported; however, they would only contribute to overstatement. As Martin (1970) stated, "We have an opportunity now

FOCUS ON EXCEPTIONAL CHILDREN is published monthly except June, July, and August as a service to those concerned with mentally retarded and emotionally disturbed children. Subscriptions rates, \$9.50 per year. Copyright 1971 Love Publishing Company. All rights reserved. Reproduction in whole or part without written permission is prohibited. Printed in the United States of America. Second class postage is paid at Denver, Colorado.

Executive and Editorial Offices
6635 East Villanova Place
Denver, Colorado 80222
Telephone (303) 757-2579

EDITORIAL BOARD

Edward L. Meyen University of Missouri

en Glenn A. Vergason ouri Georgia State University Richard J. Whelan

University of Kansas Medical Center

Frances Missing Senior Editor Stanley F. Love Publisher for a new outlook in education for handicapped children and for some major breakthroughs in education. We cannot afford to waste it."

FEDERAL INVOLVEMENT

On January 31, 1968, the First Annual Report of the National Advisory Committee on Handicapped Children was submitted to the Commissioner of Education. Recommendations were presented in four areas which in the judgment of the committee constituted special needs in the field of the education of handicapped children. One of these four primary needs was preschool programs. The committee also recommended that Congress provide additional funds for research and development centers in special education that would focus a sustained effort on major educational research problems.

In September 1968 Congress enacted the "Handicapped Children's Early Education Assistance Act, P. L. 90-538," which authorized the establishment and operation of model preschool and early education programs. (Information concerning this Act, as well as any other programs, may be obtained by writing directly to the Bureau of Education for the Handicapped, U.S. Office of Education, Washington, D.C.; or to the Editor, *American Education*, 400 Maryland Avenue, S.W., Washington, D.C. 20202.) These model programs are designed to develop and demonstrate effective approaches in assisting handicapped children during their early years.

In addition to the Operational and Planning Projects, a National Evaluation Center was established at the University of Texas at Austin.

As is the usual custom, the Act provided delineating definitions. Handicapped children are the: (1) mentally retarded, (2) hard of hearing, (3) speech impaired, (4) visually impaired, (5) seriously emotionally disturbed and (6) crippled and other health impaired who, by reason thereof, require special education and related services. The Preschool Period is that early developmental-educational period in a child's life which extends from birth to entrance into the elementary school program (usually at the age of six). The Early Education Period is defined as that period beginning with the initial entrance into school and ending at the completion of third grade (age nine approximately). The Act also defined Model Programs as those that demonstrate high quality services, maintain visibility for both professional and general communities, and provide a program that could be replicated or components which could be adapted to meet other communities' local needs.

De Weerd (1969) has described the functions of the three initially funded operational grants, as well as some of the planning grants. United Cerebral Palsy of New York City, Inc., has established "a preschool program for identification of physically handicapped children before the age of two and one-half years, and for the provision of graduated educational and therapeutic services. Children two and one-half to three spend two half-days in a nursery school environment with their parents each week. Three and one-half- to four and one-half-vear-olds are in school for two full days each week; and by age six, children are spending three days weekly in the program prior to entry into regular public school or another educational program." A full complement of personnel and services are involved, including medical staff, psychiatric and psychological counselors, speech therapy, social work services, nutritionist, educational curriculum consultant, and a rehabilitation engineering consultant. An extensive parent involvement program is also included. The UCP program started with twenty-four preschoolers in the Fall of 1969, and is expected to serve approximately sixty children when fully operational.

A Preschool Center for Multi-Handicapped Children is being conducted by the Detroit Public Schools as an operational project. In addition to the diagnostic and referral services which are available in the district to all multihandicapped from birth to age five years eleven months, approximately twenty to thirty-five two- to fiveyear-olds, severely multi-handicapped children are enrolled in this operational program. Flexible scheduling is maintained for individual child participation in the educational and therapeutic activities. Individualized curriculum programs are designed for use in the classroom and/or home. The goal is to prepare the children for entry into regular kindergarten or first grade.

Entry into the regular public school system is also the eventual goal of the operational project conducted by the Massachusetts Department of Public Health in Boston, which is located at the New England Hospital. As with the Detroit project, the emphasis is on the physically handicapped child. Forty physically handicapped children, ages three to six, who (1) are unable to attend regular schools, and/or (2) have psychological problems, and/or (3) are developmentally retarded, participate in the program. Occupational and physical therapy is available along with social, intellectual, and emotional growth programs. As De Weerd (1969) described, "The goals of the service activities for the children are the development of individualized educational and medical regimens and the creation of a stimulating preschool environment. The program is experience-based, stressing active participation and language development. The rehabilitation activities are related to the educational program as far as possible. Comprehensive supplementary health, social, and psychological services are available to the children in the preschool program."

EARLY EDUCATION RESEARCH CENTERS

A national network of federally funded early education research centers presently exists. They are charged with the responsibility of providing the knowledge and the means by which all young children may develop competencies to master their environments and live effectively in a rapidly changing society. The *National Coordinating Center*, a component of the Central Midwestern Educational Laboratory,² acts as a liaison between the various contributing centers, and enables them to work closely together in sharing information and new techniques.

Of the centers within the National Program on Early Childhood Education, the University of Oregon Center is the only one charged with the specific responsibility of working in the area of handicapped children. Sponsorship of the center is a joint venture, within the U.S. Office of Education, between the Bureau of Research and the Bureau of Education for the Handicapped.

The Center for Research and Demonstration in the Early Education of Handicapped Children, located within the Department of Special Education at the University of Oregon, has as its keystone field research directed to identification and remediation. The research concentrates on behavioral and cognitive deficits, and is divided into three main areas: identification, intervention, and dissemination.

Early identification is a main objective. To accomplish this effectively, specific diagnostic procedures need to be developed which are *educationally relevant*.

Beyond identification, techniques must be devised to prepare the child for survival within a learning program through the elimination of behaviors which interfere with his learning. Early intervention is also important, and the techniques used must be constantly evaluated. Intervention strategies that are used successfully with the normal population then need to be modified for exceptional children.

It is always important that successful identification and intervention strategies be disseminated to all concerned individuals so as to benefit the largest population of children. The center-field interchange is an important aspect of this program. The center provides support and direction for community and school personnel to

^{2.} CEMREL, National Coordination Center, 10646 St Charles Rock Road, St. Ann, Missouri 63074

conduct investigations within their own settings. The comunity agencies and schools provide the center with subjects for research and information, while the center in turn provides educationally relevant identification techniques and information on successful intervention strategies.

CENTER OBJECTIVES

In order to develop research and demonstration procedures for maximizing the learning environments of young handicapped children, the following *long-term objectives* will be met:

1. Develop and implement a conceptual model for dealing with handicapped children which is more viable than the currently employed categories of exceptionality; that is, to develop a conceptual framework which permits (a) assessment of exceptional children on educationally relevant variables, (b) grouping exceptional children on educationally relevant variables according to similarities of dysfunction, and (c) the development of a classroom teaching technology aimed at minimizing the discrepancy between actual and "expected" classroom and extraclassroom behaviors.

2. Conduct research within a conceptual matrix which emphasizes a behavioral approach in order to obtain the most urgently needed data and practices for the improvement of recently introduced, high potency identification, intervention, and dissemination techniques used with (young) handicapped children.

3. Develop and demonstrate efficient and effective techniques for early intervention designed to minimize the effects of handicapping conditions on the child, family, school, and community.

4. Disseminate relevant information on detection, identification, intervention and correction techniques beyond the early childhood center to the families, professionals, and institutions charged with providing education facilities; and thereby maximize education environments for handicapped children.

5. Determine which persons in which capacities might most profitably be included for various settings or programs as "change agents" and provide training strategies for such agents.

6. Assess the relative efficacy of programs developed within and outside the center as a means to developing direction within the research and development programs of the center.

Direction toward achieving the previously stated longterm objectives will be advanced through the following *intermediate objectives*:

1. Develop and implement a critical behavior task

approach to maximizing the educational environment of young handicapped children; that is, to identify the critical tasks on which children may be identified as discrepant performers; to develop assessment procedures which specify the intervention necessary to minimize the discrepancy between minimally acceptable and present task performance; to develop and evaluate those intervention strategies, training change agents, and to prepare intervention material and modes of assessment for identified sample groups and relevant professions.

2. Develop, implement, and assess a behavioral modification "survival skill" approach in which children likely to be academic failures are identified early by an actuarial prediction method and given training in skills prerequisite to learning (e.g., attending, persisting, reciting, etc.) and to assess adequacy of the program in terms of academic success as identified by follow-up observation data.

3. Develop and implement a survival approach in dealing with handicapped children homogeneously grouped on the basis of deviant classroom behavior, implement various intervention strategies designed to remediate behavioral deficits identified as the base of the homogeneous groupings, and assess the efficiency and effectiveness of intervention strategies in reducing the behavioral deficit.

To obtain these objectives, the center staff has a commitment to work through systematic, integrated, applied research orientation. The identification schema is to be formulated in terms of conceptual models with direct, systematic testing of necessary skills and concepts.

Strategies for attaining objectives. Optimizing the learning environments of young handicapped children through the establishment of the center rests on a plan to facilitate, coordinate, and focus the efforts of a multidisciplinary research team on the handicapped child's most important problems in early education. The eventual outcome of this approach is expected to yield optimal results.

All research and development efforts are carried out within a philosophical base which is an extension and refinement of that which is operational within the Special Education Department at the University of Oregon. The center staff has committed itself to dealing with major problems in the field through a systematic, integrated, research orientation. The dominant view is that center investigations and program development must focus on early detection, sound early intervention with a behavioristic emphasis, and evaluation procedures (through feedback) which shall be derived from the ideas of staff members who are involved in applied research, and who

are in intimate information interchange with practitioners in the field.

SPECIFIC STRATEGIES

1. Detection or identification schema is to be formulated in terms of conceptual models based in educationally relevant variables in a behavioral frame instead of the traditional etiological schema.

2. Direct, systematic evaluation of necessary skills and concepts will be implemented as a means of meeting educational goals.

3. Each program established to enlarge the early education of handicapped children will concern itself with the attainment of cognitive, behavioral, and evaluative goals for the child. In other words, in order for education to proceed, the child must be ensured of possessing a symbol system adequate for communication in a highly verbal society. He must be directed toward socialpersonal development which, though idiosyncratic, does not interfere with the consummation of educational goals; and finally, he must be prepared by the educative process to relate antecedents and consequents in order to predict events and make sound decisions in a probabilistically constrained world. He must be assisted to meet the demands of the classroom environment which is directed toward his own development.

4. A very close relationship to other facilities such as the Northwest Regional Special Instructional Materials Center, the Vocational Rehabilitation Research and Training Center in Mental Retardation, the Regional Resource Center (all located within the University of Oregon's Department of Special Education), and the other Centers for Early Childhood Education will be maintained as a means of maximizing the efficacy of the center programs.

5. The replication and extension of investigations and programs previously conducted by others using nonhandicapped populations will be emphasized in a systematic major research thrust. Obvious examples would include extensions of the Bereiter-Englemann preschool program to handicapped populations other than culturally disadvantaged, further application of curriculum and teaching procedures based on Piagetan formulations, etc.

6. The research will be conducted in a variety of settings including public schools, community agencies, state institutions for handicapped children, and the University, in order to facilitate dissemination to and implementation by field personnel. Similarly, it is important that the center provide support and direction for community and school personnel to conduct investigations within their own settings. 7. Key center staff who represent a variety of disciplinary views and approaches to early childhood education, and who share a core of similar commitments regarding the efficacy of appropriate intervention, will be maintained. The major areas presently represented by the core staff of the center are psychology, special education, early childhood education, pediatrics, educational psychology, and speech and language disorders.

The success of the strategies in meeting a programmatic approach depends upon the degree to which the program directors recognize that their results and activities are a part of a larger program. The center has a strong research emphasis whose specific aim is developing specifications of valid means for maximizing the learning environment. Operationalizing that "goal" is the function of a steering council and the center director. Stringent assessments of the viability of the individual programs in terms of the success with which they meet stated objectives will be made.

FAMILY INVOLVEMENT

Although the trend has been in progress for several years, the recent interest in early education has contributed greatly to the upsurge in parent and family involvement in the educational process. Family members are no longer considered incidental to the formal program necessary to remediate and/or develop learning and other behavioral skills. Active participation in every aspect of the process is now essential if total success is to be achieved. Educators and other professionals must encourage this participation, suggestions as to how specifically handicapped children can be helped by their parents. There are hopeful signs that this is taking place.

"Closer Look." One of the U.S. Office of Education's most interesting recent activities has been the "Closer Look" campaign. Using actress Anne Bancroft's voice to narrate television and radio messages, parents are being urged to take a closer look at their young children in order to spot existant or developing learning handicaps. The objective is to enlist the aid of parents in particular, and the populace as a whole, in the always difficult early identification procedure. It is also the aim of this program to be a resource to the parents in locating the necessary aid and resources in their local communities. To provide this information, a national Special Education Information Center has been established in Washington, D. C. By writing "Closer Look," Box 1492, Washington, D. C., parents, teachers, and other interested persons will receive computerized information about facilities and special education programs for handicapped children.

Problems and Practice. Although the active participa-

FOCUS ON EXCEPTIONAL CHILDREN MARCH 1971

tion of parents in the educational process of young handicapped children is presently an accepted necessity, many problems still exist. It isn't enough just to open the doors and then pat ourselves on the back for obtaining more bodies to help decrease our workload. Utilization of this resource must be preplanned, specific, and structured. Before this can occur many questions must be thoroughly investigated and answered. Calvert (1969) has succinctly stated these concerns: "In developing dimensions of family involvement, we would do well to follow the interrogative approach of journalists who systematically investigate the who, what, why, when, where and how of situations. Who among family members should participate, what is the nature of their involvement, why should they participate, when do they become involved, where does their participation take place, and how is their participation induced?" Many programs throughout the country are engaged in answering these very questions.

Jester (1969) has described a comprehensive program being conducted in Florida, which is representative of other projects. The program utilizes parent educators who work with the parents and children in the home. "The Parent Educators build their contacts with the mothers around specific tasks which have child relevance and home relevance. Finally, the process is monitored through systematic observation techniques designed to pick up and record specific activities seen in the classroom and through a weekly report filled out by the Parent Educator for each home visit made." This program, which trains parents to become teachers of their children, is based on two assumptions. The first assumption is that "the child's home environment is the place which has the most lasting and powerful influence on his adaptation to school and to the world around him." The second assumption is that the most likely person to have a recognizable influence on mothers, in their dealings with their offspring, is someone much like them; therefore, parent educators are recruited from environments similar to those of mothers with whom they will work.

The United Cerebral Palsy of Queens, Inc., in Jamaica, New York, has developed a comprehensive program for parents. Besides having a Home Service Coordinator who travels to the infants' homes to instruct or check on prescriptive home programs related to activities of daily living, parents are involved at the school. Mothers meet in small groups twice a week and in larger groups twice a month. In describing the programs Goidel (1969) has stated, "The major thrust in this activity is that of providing supportive counseling in a group framework, enabling the mothers to cope more successfully with their role of mothers and wives. On the second day of the mothers' attendance, they are assigned a morning of mother service in the classrooms or therapy rooms of our older handicapped school population. This experience provides them with the opportunities to observe the developmental sequence in older children and to assume an active role in the total agency program." In addition, fathers also meet separately in two evening discussion group meetings each month.

A behavioral program designed to train parents of retarded children was initiated in 1967 at the University of Oregon Medical School (Terdal and Buell, 1969.) One aspect of this program was to train parents in methods of building up, in their child, appropriate behaviors in areas such as self-help skills. Parents were taught by the staff to provide an optimal environment for their handicapped children. In each case, goals were individualized to fit problems and needs of the child and family. Parents were first encouraged to identify goals such as eliminating inappropriate behaviors and/or developing skills in their children. Through staff demonstrations and work with their own children, parents observe and practice principles of reinforcement and shaping.

Other recent practices throughout the country include having parents serve as diagnosticians, data-gathering observers, teacher aides, program consultants, and counselors. Active participation of family members in educational programs appears limited only by the imagination and desire of those concerned.

INSTRUCTIONAL CONTENT AND METHODOLOGY

The *specific instructional content* appears to be more difficult to suggest than the concept that it is needed.

One of the particular problems that is apparent is defining the term "Instructional Content," i.e., what is Instructional Content, what is Method, etc.? As Mager (1968) has pointed out, the reason one would lecture, tutor, or otherwise assist a student to learn would be in hope that the child would

know more than he knew before; understand something that he did not understand before; develop a skill that was not developed before; feel differently about a subject than he felt before; or develop an appreciation for something where there was none before . . . no teaching goal can be reached unless the student is influenced to become different in some way than he was before the instruction was taken.

As Mager presents so well, there are many descriptors used when discussing the "what" of instruction. Therefore, one important task is defining exactly what is meant by Instructional Content.

Evelyn Pitcher (1966) in her book, Helping Young

Children to Learn, states that through the child's own activity and discovery she desires to foster development of curiosity, problem-solving, ability to question thoughtfully, and thinking for himself. She further states that "to join effectively in the educational process, the preschool child must be equipped with basic information, abilities, and attitudes. He must: (1) continue development of communication skills; (2) begin to symbolize ideas into pictures and signs; (3) encounter variety to draw concepts; (4) develop the power of sensory discrimination; (5) learn that the world is a realm of regularities in which he can have confidence; and (6) begin to shape abstract concepts."

Wann (1960) has taken exception to the fact that nursery schools and kindergartens have usually been more concerned with developing emotional stability and and skills in social adjustment than with contributing intellectual content to children's experiences. He takes the position that teaching methods in the schools must support and extend the *ability to think, to reason, and to conceptualize.*

Ayers (1969) takes a similar position. He believes that educational stimulation should not endorse waiting, but require instead a well-designed plan by which the child is led carefully and comfortably through a series of structured activities aimed at developing the characteristics necessary to perform specific skills as early as possible, "Cognitive learning is the major instructional emphasis." He takes an additional position by stating that science is "an essential study for youngsters, whose world has virtually been created by science."

Karnes, Hodgins, and Teska (1970) have described the first year results of a study designed to evaluate the effectiveness of two different preschool programs. One program provided the traditional nursery school experience which worked in conventional ways to improve the personal, social, and motor development of the children. The other, an experimental program which provided a structured agenda, focused on specific learning tasks chosen from school-related curricula divided into three areas: social studies/science, mathematical concepts, language arts, and reading readiness. Briefly stated, they present the goals of the three areas as:

Social Studies and Science:

- 1. Teach useful vocabulary.
- 2. Develop skills of classification.
- Supply simple experiences in developing sensory discrimination.
- 4. Provide basic observation of natural phenomenon.

Mathematics:

- 1. Development of basic number concepts.
- 2. Appropriate manipulative skills.

- 3. Useful vocabulary.
- Language and Reading:
- 1. Develop fine visual and auditory discriminations.
- 2. Develop visual motor coordination.
- 3. Memory activities plus sequential activities.
- 4. How to handle a book in associated skills.
- 5. Create new language responses.

These investigators report the experimental program to be significantly more effective in promoting intellectual functioning, language abilities, perceptual development, and school readiness as measured by selected tests.

Bereiter and Engelmann (1966) believe that young children from culturally disadvantaged environments lack those particular "kinds of learning" that are important for success in school. They point out that if these children are to "catch up" they must progress at a faster than normal rate. They further state that "A well rounded program is, therefore, incompatible with the goal of catching up," and that selectivity is necessary. They have pinpointed specific skills which have been established as objectives, involving language and mathematics: (1) ability to use both affirmative and negative statements in response to the command, "Tell me about this"; (3) ability to handle polar opposites; (4) ability to count objects correctly up to ten, etc.

Other professionals have taken a different point of view as to what the "Instructional Content" should be in the education of young children. Hymes (1968) has stated that the kind of person we want in our society is one who is a rugged individualist, uses his head, has a heart, is free, and has a healthy self-concept. To Hymes, this means the child becomes a existential person-alive, with a full feeling of self-awareness and self-direction. He further states that what children come to school to learn is "selfhood." The school must allow for this development in all the areas of subject matter; but the approach of scope and sequence in the curriculum is not presently well suited to programs for young children. There are significant learning situations wherever children turn, and their specific interests are more important than the logical order. The author feels that the natural happenings in the child's environment is the content. The teacher should choose those happenings with richness in potential learnings. At a later age, the child can put what he has learned in logical order in his mind.

Sponberg (1969) takes a similar position based on the idea that "children are always changing . . . they stress the recognition of environments that meet the needs of individual children." Sponberg further states that teachers should "let the children make their choices of activities for the day . . . the only way to get people to accept

responsibility for decisions they make is to give them chances to make them." For this author, much of the emphasis in evaluation is in children's attitudes: "Do they question more?"; "Are they able to express their feelings and interests in an individual way?"; "Do they transfer concepts acquired in working with mathematics into science and social studies experiences?"

It is apparent from this brief presentation of the literature that there is no unanimous agreement as to what the instructional content should be, and more importantly, very little specificity. Therefore, it appears that much effort must be given in documenting what the specific "what" should be in the education of young children. With these problems in mind, the following is a small sampling of existing programs. Only those programs involved with mentally retarded children are described.

Hodges (1968) has described a comprehensive preschool program for retarded children in the State of Virginia. Both educable and trainable retarded children from three to eight years of age are provided training in the basic skills by controlled experiences designed to encourage communications, social adjustment, manual dexterity, good habits and independence. The program begins with and is always focused on the child. The process is initiated by accumulating all available information on the child and is not designed to "cure" but to encourage self-control, social adjustment, self-care, and planned instruction in selected areas of common information to stimulate interest in immediate environment. The children are divided into groups of ten, determined by age, size, maturity, and ability. Mongoloid and braininjured children are not segregated, but instead, are dispersed among the groups. Parents are given regular written progress reports and are expected to work cooperatively with the teacher.

Ottenstein and Cooper (1968) have described a model community program in preschool nurseries and occupational training for the mentally retarded. The primary purpose of the program, which has been developed by a mental health center in conjunction with parent groups and state agencies, is to provide for a smooth transition into the public school special classes. As described, the program differs from many others in that the emphasis is on the physical condition of the children. A thorough medical work-up is established by the clinical pediatricians, psychiatrists, and psychologists. Another unique feature involves having the mothers help in the nursery for three or four weeks to help them relate to their children; the mothers are later offered individual or group therapy.

In an attempt to put meaning into the phrase "quality education for all children," Unger (1968) has described a community nursery school and kindergarten program which is conducted on a "cooperative" basis. The innovative concept is the education of the handicapped with "normal" children. Unger believes that such a procedure can provide the perfect setting for a preventive and ameliorative mental health approach. To assure a successful program, she lists several safegaurds. First, there should be a ratio of one "special" child to every three normal children. Second, a full and open discussion with the teacher concerning the child and his needs should take place prior to enrollment in order to ensure that the teacher can accept the child and wants to work with his personality. Third, the school must be prepared to hire an extra person, or seek a community volunteer. Fourth, it is important to have the mothers of the "normals" fully prepared before the entrance of the special child. Several other descriptions of integrated programs are contained in the literature (Payn, 1969; Sennet, 1970; and Lively, 1965); such programs are worthy of continued study.

Most of the new early education programs being established for mentally retarded and other handicapped young children are attempting to develop a diagnostically-based curriculum. The objectives of such an approach have been presented by Kenney (1969) as being: "(a) to diagnose the developmental patterns of individual children, assessing through observation and tests emotional, visual-motor, and auditory-vocal levels of development, (b) to actively intervene and tailor a developmentally planned school program to enhance strengths of the individual child and help compensate for weaknesses, and (c) to work jointly with parents in order to improve the child's ability to function in the home and community." This approach is based on the increasing evidence that adult-guided stimulation of young handicapped children, as opposed to unguided and self-guided exploratory learning, produces higher levels of learning and adjustment. Some of this evidence has been provided by Spicker, et al. (1966) who have described the development of a diagnostically based curriculum for a group of five-year-old, mentally retarded and psychosocially deprived children. The investigators placed the children into four groups with about fifteen children in each group designated as: (1) an experimental preschool class (EPS) who received the diagnostically based curriculum; (2) a kindergarten control class (KC) which received regular kindergarten curriculum; (3) a regular control group (RC) who remained at home and received only pre-testing and post-testing; and (4) a diffusion control group (DC) who were located in many towns, and who remained at home and received only pre- and post-testing. Generally, the results indicated the experimental diagnostically-based curriculum group to be superior to the other groups in adjustment and learning. The authors reasoned that if the exact nature of a problem area (such as, language deficiencies, fine and gross motor impairment, or problems in perception, motivation and socialization) can be ascertained, then specific curriculum practices can be developed to to remedy the problem.

SUMMARY

Although space does not allow for elaboration, the following statements are presented for the reader's information. They represent the collaborative recommendations of many leaders in the field of early education for handicapped children.

Techniques and procedures for early identification. Early identification is a multifaceted problem and must include public education of parents, physicians, and social service agencies, and a provision for educational centers for referral. All avenues-mass media, communication through school-aged children, professional organizations, and community health organizations-must be utilized to reach families.

Appraisal instruments. Approaching the task from various points of view, multi-factoral consideration of many criteria is recommended. Standard instruments related to suspected deficits can be used, but probably more relevant are the opinions of specialists and a clinical procedure which reviews the child's individual history and current environment.

Programming techniques for meeting individual needs. Organize the individual environment based on specific needs and provide for idiosyncractic interaction with the environment. The program should be based on controlled stimulation and developing success. Techniques are often parent-oriented and may utilize simple tasks and materials.

Facilities. Well-planned facilities and special equipment are a definite asset, but are not as important as establishing personal relationships. An appropriate environment can usually be provided through remotivation, accoustical treatment, and other special treatment.

Staff qualifications and ratios. Staff qualifications should be the same as for any truly effective teacher, but should include a preservice emphasis on normal early childhood, an interest in and study of handicapping conditions, and a broad personal background of knowledge and experiences. Of much importance is inservice

education along with flexible teaching arrangements.

Recommendations for child-teacher ratio varies according to handicapping condition. General agreement exists that a team approach, e.g., two to ten, is more appropriate than a ratio of one to five.

Specific materials and equipment. Few special devices and materials are considered essential. Manipulative and perceptual training material are most frequently suggested along with good materials for any preschool program. The fourteen Regional Special Educational Instructional Materials Centers and the ERIC publications are suggested as excellent and valuable sources of materials.

Family involvement. Family-centered programs with family members involved in a teaching process is highly recommended. Most frequently mentioned techniques include parent observation followed by group and/or individual discussions and the use of school personnel going to the home on a regular and continuing basis.

Evaluation of progress. The most promising suggested techniques include team evaluations, development of behavioral objectives, clinical-type record keeping, selfevaluation, periodic video taping, and periodic profiling of overall development.

Labeling. Traditional descriptive labeling and categorization appears no longer viable in special education and is particularly adversive with very young children. Inappropriateness of categorical designators in common use is frequently stated. Remedial recommendations include educating the public to a shift in emphasis toward functional-need categories. "Softened" descriptive categories with the focus upon the child as an individual human being is encouraged.

Public school obligation. The desirability of public school involvement with the handicapped child prior to five years of age is frequently stated. However, the practical considerations of costs, facilities and staff are recognized as problems which will take time to resolve. Presently, much effort needs to be given the development of pilot programs, techniques, staff patterns, public education and research.

REFERENCES

Ayers, J. "What Can Young Children Learn-and When?"

- Nations Schools, 1969, 83, 5. Beach, F. A. "The Individual from Conception to Conceptuali-zation." In J. F. Rosenblith and W. Allinsmith (Eds.), The
- Causes of Behavior II. Boston: Allyn & Bacon, 1966, 35-44. Bereiter, C., and Engelmann, S. Teaching Disadvantaged Child-
- ren in the Preschool. New Jersey: Prentice-Hall, 1966. Bloom, B. S. Stability and Change in Human Characteristics. New York: John Wiley & Sons, 1964.
- Caldwell, Bettyre M. "What Is the Optimal Learning Environment for the Young Child?" American Journal of Orthopsy-

chiatry, 1967, 37, 8-21.

- Caldwell, B. M., and Richmond, J. B. "The Children's Center in Syracuse, New York." In L. Dittman (Ed.), Early Child Care: The New Perspectives. New York: Atherton Press, 1968, 326-358.
- Caldwell, Bettye M. "The Rationale for Early Intervention. Exceptional Children," 1970, 36, 10, 717-726.
- Calvert, D. R. "Dimensions of Family Involvement in Early Childhood Education." Mimeographed material, December, 1969
- De Weerd, Mary Jane. "Model Centers and Their Functions." Exceptional Children, 1969, 36, 4, 234-243. Goidel, Dolores M. "United Cerebral Palsy of Queens Young
- Infant Program." Paper presented at Early Childhood Education CEC Convention, New Orleans, December, 1969.
- Gray, S. W., and Klans, R. A. "An Experimental Preschool Program for Culturally Deprived Children." Child Development, 1965, 36, 887-898.
- Hayes, C. The Ape in Our House. New York: Harper, 1951. Heb, D. O., and Williams, K. A. "A Method of Rating Animal
- Intelligence." Journal of Genetic Psychology, 146, 4, 59-65. odges, Ann B. "Scope of the Early Training of the Preschool Retarded Child in Virginia." Journal of School Health, 1968, Hodges, Ann B. 38(7), 443-448.
- Hunt, J. McV. Intelligence and Experience. New York: Ronald Press, 1961.
- Hymes, J. Teaching the Child Under Six. Ohio: Charles E. Merrill, 1968.
- Jester, R. Emile. Focus on Parent Education as a Means of Altering the Child's Environment. Mimeographed material, Institute for Development of Human Resources, College of Education, University of Florida, 1969.
- Karnes, M. B. "Research and Development Program on Preschool Disadvantaged Children." Final Report, Project No. 5-1181, Office of Education, Bureau of Research, U. S. Department oof Health, Education, and Welfare, 1969.
- Karnes, Merle B., Hodgins, A., and Teska, J. "Effects of Four Programs of Classroom Intervention on the Intellectual and Language Development of 4-year-old Disadvantaged Children."
- American Journal of Orthopsychiatry, 1970, 40(1), 58-76.
 Kenney, Eleanore T. "A Diagnostic Preschool for Atypical Children. Exceptional Children," 1969, 36, 3, 19-199.
 Kirk, S. A. Early Education of the Mentally Retarded. Urbana,
- Ill.: University of Illinois Press, 1958,
- Lively, Virginia. "The Kindergarten Teacher and the Exceptional Child." Elementary School Journal, 1965, 66(3), 143-147.
- Mager, R. F. "Developing Attitudes Toward Learning. Palo Alto: Fearon Publishers, 1968.
- Martin, E. W. "A New Outlook for Education of Handicapped Children." American Education, April, 1970.
- Ninnicht, G., and Meier, J. "Research of the New Nursery School," interim report. Unpublished Manuscript, 1967. Ottenstein, D., and Cooper, S. "A Community Mental Health
- Program for Mental Retardation: Community and Planning Aspects." Journal of the American Academy of Child Psychiatry, 1968, 7(3), 536-547. Payne, Sara. "Where Handicapped Mix With the Rest." Times
- Educational Supplement, 1969, 2812.
- Pitcher, Evelyn. "Helping Young Children to Learn. Ohio: Charles E. Merrill, 1966.
- Ross, Sheila A. "Effects of an Intensive Motor Skills Training Program on Young Educable Mentally Retarded Children. American Journal of Mental Deficiency, 1969, 73, 6.
- Sennet, Edith L. "A Negative Learning Force Becomes a Positive Teaching Tool." Teaching Exceptional Children, 1970, 2, 2.
- Skeels, H. M., and Dye, H. B. "A Study of the Effects of Differential Stimulation on Mentally Retarded Children." Convention Proceedings American Association on Mental Deficiency,

1939, 44, 114-136.

- Skeels, H. M. "Adult Status of Children With Contrasting Early Life Experiences." Monographs of the Society for Research in Child Development, 1966, 31, 3, 1-65.
- Spicker, H. H., Hodges, W. L., and McCandless, B. R. "A Diagnostically Based Curriculum for Psychologically Deprived, Preschool, Mentally Retarded Children: Interim report." Exceptional Chilren, 1966, 33(4), 215-220. Sponberg, Ruth A. "New Kind of School Day." Education Di-
- gest, 1969, 34, 8.
- Terdal, L., and Buell, J. "Parent Education in Managing Retarded Children With Behavior Deficits and Inappropriate Behavior. Mental Reardation, 1969, 7, 10-13.
- Thompson, W. R., and Heron, W. "The Effects of Restricting Early Experience on the Problem-solving Capacity of Dogs. Canadian Journal of Psychology, 1954, 8, 17-31. Unger, Beverly K. "New Directions for Nurseries." Young Chil-
- dren, 1968, 24, 1. Wann, K. D. "Children Want to Know." Childhood Education,
- 1960, 37, 8.
- Weikart, D. P. "Preschool Programs: Preliminary Findings." Journal of Special Education, 1967, 1, 163-181.
 Weikart, D. P. A. "A Comparative Study of Three Preschool
- Curricula." A Paper Presented at Society for Research on Child Development biennial meeting, Santa Monica, Calif., March, 1969.

RESOURCE MATERIALS

By Avaril Wedemeyer and Joyce Cejka BENEFIC PRESS

Benefic Press offers imaginative programs of instruction in language arts, social studies, science, and math. Oral Reading and Linguistic Series for grades 1-6 affords oral expression with printed words in the book. It involves the children in meaningful oral expression. Each child has the opportunity to gain insight through sharing language experiences and playing roles meaningfully, recognizing and adapting pace and presentation of oral languages to the message and mood of the material. The Linguistic Series involves the child in activities that enable him to appreciate literature forms and to acquire speech and linguistic skills. Each of six books in the series contains four sections: Riddles, Rhymes, and Poetry; Plays; Stories; Language Sounds and Sense Meaning. Records provide a grade-by-grade oral readinglistening program that allows the teacher to select a particular type of lesson for full class, small group, or individual pupil use.

Softbound set of six books - \$12.60.

Hardbound set of six books - \$18.48.

Set of six records - \$29.70.

Send for books or a catalogue to Benefic Press, 10300 W. Roosevelt Road, Westchester, Ill. 60153.

CORONET FILMS

Coronet Learning Programs for Intermediate, Junior and Senior High are short units of work. Each unit booklet is subdivided into ten sets for ease of work. Teachers can assign programs where and when they see them needed. The booklets offer support and reinforcement. The self-help format lets students who have missed schoolwork catch up on their own. Short sets of developmental questions and exercises require the student to think through to immediate answers and immediate verification. Each successfully completed exercise contributes to understanding the next one, and the final set is a review and self-test. Each student paces himself according to his own ability.

The program includes twenty-two learning programs in seven areas: Mathematics, grades 4-10; Science, grades 4-12; Health, grades 4-6; Social Studies, grades 4-9; Business Skills, grades 9-up; Language Arts, grades 4-12; and Guidance, grades 7-12. A packaged program of twenty-five booklets is \$30.00 per set. 1-24 copies are \$1.50 each; over 25 are \$1.20 each.

Also available is the Coronet Instructional Materials Catalog, which lists filmstrips with records or cassettes, and 16 mm educational films. Write for catalog and materials to Coronet Films, 65 E. South Water St., Chicago, Ill. 60601.

FRANK E. RICHARDS PUBLISHING COMPANY

The Frank E. Richards Publishing Company specializes in materials with a high-interest, low reading level. One ten-volume series includes classical literature such as *Treasure Island*, *Tom Sawyer*, and *Swiss Family Robinson*. The material has been rewritten in simplified versions, which omit difficult words and lengthy descriptions. The books must be purchased in a set, and cost \$59.50 for one set or \$39.50 each when three or more sets are purchased.

Available now are paperbound textbooks which stress the use of money, time and measurement concepts, language usage, getting and holding jobs, and social and the titles "Counting My Money," Making My Money Count," "Buying Power," and Earning, Spending, and Saving," \$1.35 each. Two simplified workbook texts are available in the area of manuscript and cursive writing at \$1.50 each. There are several science books on electricity and the weather for 85c each. "Getting Ready to Drive" and "Know Your Signs-Be a Better Driver" are suitable for driver education programs. Unemployed Uglies is the name of a program which uses cartoons to stimulate class discussion on the subject of appropriate on-the-job behavior. The materials are described as being appropriate for work study programs, high school programs for the educable mentally retarded, and adult basic education catalogues.

Any of the above, plus a catalogue with more complete information, may be obtained by writing to Frank E. Richards Publishing Co., 324 First St., Liverpool, N.Y. 13088.

WASHINGTON REPORT

President Nixon has signed Public Law 91-516, the Development Disabilities Services and Facilities Construction Amendments of 1970. P.L. 91-516 extends the Mental Retardation Facilities Act of 1963 which expired on June 30, 1970.

The new Act will continue to fund mental retardation programs as did the 1963 Act, but it will also provide programs for persons affiliated with neurological conditions which the Department of Health, Education and Welfare describes as "developmental disabilities."

Section 102 of the Developmental Disabilities Act defines a development disability as: ". . . a disability attributable to mental retardation, cerebral palsy, epilepsy, or another neurological condition of an individual found by the Secretary to be closely related to mental retardation or to require treatment similar to that required for mentally retarded individuals, which disability originates before such individual attains age eighteen, which has continued or can be expected to continue indefinitely, and which constitutes a substantial handicap to such individual."

P.L. 91-516 authorizes the expenditure of \$295 million over a three-year period for the construction of clinics, hospitals and other facilities and the development of new programs for the treatment and rehabilitation of those with developmental disabilities. It also provides funds for training professionals to work with the developmentally disabled.

The Federal share in many projects will be 75 percent for fiscal year 1971 and 1972 and 70 percent for fiscal year 1973 except for those in poverty areas where the Federal share may go as high as 90 percent the first two years and 80 percent the third year.

Appropriations authorized are: \$60 million for fiscal year 1971, \$105 million for fiscal year 1972, and \$130 million for fiscal year 1973.

<u>CLASSROOM</u> FORUM

Edited by Austin J. Connolly, University of Missouri

PROBLEM 7

My junior high class for the educable mentally retarded has expressed interest in taking another field trip. The class has taken two previous field trips this year and both were very poor. What techniques can I employ to insure that another field trip would be a meaningful learning experience?

Careful and thorough planning is necessary for a satisfying experience on a trip. Important steps involved in planning field trips include your own preliminary planning, planning with your students, planning with others going on the trip, and planning with personnel where the trip is to take place.

Prior to making extensive plans, the teacher must ask herself the following questions.

- 1. Does the trip fit naturally into the sequence of work students are doing in the classroom?
- 2. Can the proposed trip be completed in the time you have available?
- 3. Does the trip have enough learning value to justify the time, trouble, and expense it will take?
- 4. Will the trip provide an important experience that is not available in any more convenient form (such as films, T.V., etc.)?
- 5. Is the trip appropriate and suitable for the age and ability level of the students involved?
- 6. Will the experience arouse and hold the students' interest?
- 7. Will the trip have the approval and support of the principal and parents?

If your responses to the above questions are less than positive, don't go; a trip for a trip's sake is an instructional cop-out. Assuming your responses are positive, you now are ready to approach your class and involve them in cooperative planning. They should:

1. Discuss the need for the trip and with the teacher's assistance formulate specific objectives they wish to ac-

complish.

- 2. List the things they expect to see and the questions they would like to have answered. Certain students may be selected as being responsible for getting answers for particular questions.
- 3. Collect information before the trip in the form of articles, pamphlets, books, etc.
- 4. Discuss the ways they will document the trip. Are they to take notes? Collect materials?
- 5. Establish safety and behavior standards including expected courtesies.
- 6. Discuss and plan specific details including: time, transportation, group needs, and personal needs.

The teacher is also responsible for pre-planning with others going on the trip. Do not expect volunteers and others to know what to do without your briefing them on their responsibilities. They should know: the objectives of the trip, the route of the trip, behavior and safety standards, and what to do in regard to discipline.

The teacher is also responsible for contacting personnel at the site of the field trip. She should share with them the objectives she hopes to achieve by the visit. When possible, she should take the trip in advance to familiarize herself with the available resources.

By developing definite routines on field trips, teachers can keep management problems to a minimum. These include procedures for gaining class attention, asking questions, walking in lines, riding on the bus, etc.

Our appreciation and a complimentary year's subscription go to Mr. Gary Collings, EMR consultant, Ocala, Florida for his contribution to this month's article.

PROBLEM 9

My administrator of special education has requested that his teachers submit their ideas for in-service training. What suggestions would you have in regard to relevant topics and resources?

All readers are invited to send their solution and tell how they would handle Problem 9. The May 1971 issue will summarize contributions by readers. *Focus on Exceptional Children* will award complimentary subscriptions each month for the best solution. Send your response to the Editorial Offices, *Focus on Exceptional Children*, 6635 East Villanova Place, Denver, Colorado 80222.