Written primarily for educators and parents interested in the education of young handicapped children, the document contains a review and analysis of the research literature concerned with preschool mainstreaming in the context of the present range of preschool programs. In the introduction, it is reported that information comes from interviews and site visits as well as from a review of the literature, and that the ability and attitude of the teacher appear to be the most important factors in the success of an integrated program. The following six chapters cover such topics as trends in the education of young handicapped children (from 1861 to the present), the effectiveness of early intervention programs, approaches to early childhood education mainstreaming (partial and complete mainstreaming), elements of a mainstreamed early childhood education program (including program design, teacher role, and parent participation), major issues in mainstreaming (such as assessment and placement of young handicapped children, reasons for favoring mainstreaming, and preparation for elementary school), and unanswered questions about mainstreaming (which include "what type of curriculum obtains the greatest gains with which kinds of children?"). Appended is a bibliography of about 50 articles, books, and documents and 10 children's books with information usually including author, title, source, publication date, description, and availability. Also provided is a list of organizations, bibliographies, and other sources of information noted to be helpful to educators and parents of handicapped children. (SB)
MAINSTREAMING AND EARLY CHILDHOOD EDUCATION FOR HANDICAPPED CHILDREN:

A Guide for Teachers and Parents

Suzan Wynne, Project Director
Joan K. Brown
Gayle Dakof
Linda S. Ulfelder

April 1975

Division of Innovation and Development
Bureau of Education for the Handicapped
U.S. Office of Education
U.S. Department of Health, Education and Welfare

3804 Legation Street, N.W. / Washington, D.C. 20015 / (202) 966 7273
# Table of Contents

Acknowledgements

**INTRODUCTION** ........................................... 1

Key Terms .................................................. 3

Sources of Information .................................... 3

Major Conclusions .......................................... 6

**CHAPTER I**  TRENDS IN THE EDUCATION OF HANDICAPPED CHILDREN

Prior to the 1960's ........................................ 8

The 1960's .................................................. 9

The 1970's .................................................. 10

**CHAPTER II**  EARLY CHILDHOOD EDUCATION FOR HANDICAPPED CHILDREN ........................................ 14

**CHAPTER III**  APPROACHES TO EARLY CHILDHOOD EDUCATION MAINSTREAMING ........................................ 19

**CHAPTER IV**  ELEMENTS OF A MAINSTREAMED EARLY CHILDHOOD EDUCATION PROGRAM

Overview .................................................... 22

Structuring the Program Around Goals .................. 24

Program Design ............................................. 25

Assessing and Evaluating Programs Without a Million Dollars ........................................ 28

The Teacher .................................................. 34

Supportive Services ....................................... 42

Curriculum and Materials ................................ 43

Physical Environment and Facilities ..................... 49

Parent Participation ....................................... 50
The chapters included in this publication were written pursuant to a contract with the Office of Education, U.S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official Office of Education position or policy.
ACKNOWLEDGEMENTS

We wish to acknowledge the help of many people and organizations during the course of this contract. Our special thanks to Natalie L. Browne and James Kendrick for their early assistance in the development of this project.

We also wish to thank the staff persons at the early childhood education programs that we visited, who spent long hours with us and permitted us to observe their classrooms. These programs, along with a list of our other contributors are listed in Appendix A.

During the course of this project we were assisted by a number of people who reviewed and commented on various sections of this report, met with our staff individually and in groups, shared with us their philosophies of education for young children, and in general, influenced the direction of this report. Our grateful thanks to Ronald Wynne, Co-Director of Wynne Associates; Thomas Finch, Director of the Division of Special Education of the Child Development Center, Georgetown University Hospital; Michael Guralnick, Director of Research, National Children's Center; James Wise of the Bowie Therapeutic Nursery in Bowie, Maryland, and Children's Hospital of the District of Columbia; Eric Seidman, of the University of Maryland; Samuel Meisels, Director, Eliot-Pearson Department of Child Study, Tufts University; and Bernice Munsey, National Secretary for the Association for Children with Learning Disabilities.

Additional guidance was provided by the ideas and insights of James Gallagher, Director, Frank Porter
Graham Child Development Center, University of North Carolina; David Braddock, from the Council for Exceptional Children's Head Start Information Project; Andrew Hayes, from the Technical Assistance Development System, Frank Porter Graham Child Development Center, University of North Carolina; Anne Sanford, Director, Chapel Hill Training-Outreach Project; and Laura Dittman and Robert Marcus of the University of Maryland's Institute for Child Study. We greatly appreciate their generous help.

Special thanks are due to Max Mueller, Chief of Research Projects Branch, Division of Innovation and Development, for his advice and support throughout this project. Also from BEH, Paul Ackerman, Chief of the Program Development Branch, Jane De Weerd, Program Coordinator of the Handicapped Children's Early Education Program, and Melvin "Bud" Moore, interning at BEH and of the University of North Carolina, gave valuable assistance to our project. We owe thanks to them and to Pamela Coughlin, Director of Special Projects, and Robert Walling, from the Division of Research, both from OCD.

We are grateful to Samuel Braun, Clinical Director, Preschool Unit, Cambridge, Massachusetts, for his thoughtful and stimulating letter. Stanley Chow, of the Far West Laboratory for Educational Research and Development, graciously provided a copy of his excellent book, Configurations of Change. The advance loan of the Hobbs report, by the Jossey-Bass Publishing Company, was also tremendously useful. The use of these documents was invaluable and we appreciate the help of those who made them available to us.

Thanks also to Laura Thompson and Nonny Soifer
for their assistance in compiling and organizing the bibliography, and to Norma Drayton and Lee Kingham for their production assistance.

Suzan Wynne, Project Director
Joan K. Brown
Gayle Dakof
Linda S. Ulfelder
INTRODUCTION

The Bureau of Education for the Handicapped of the U.S. Office of Education estimates that there are seven million handicapped children, one million of whom are below the age of six. Hundreds of thousands of these youngsters, in thirty-five states, are affected by current legislation mandating early intervention for handicapped children. BEH has identified the integration of handicapped children into regular preschool classes as a potential strategy for meeting this legislative mandate.

Over the past few years there has been a growing tendency toward the integration of handicapped children into regular preschools, as well as into regular primary and secondary schools. The trend toward "mainstreaming" must be examined more closely, for what is ultimately at issue is the quality of education for all children.

In line with the goal to provide high quality education for young handicapped children, the Division of Research of the Bureau of Education for the Handicapped awarded Wynne Associates a six-month contract (No. OEC-0-74-9056) to identify, evaluate and integrate existing and ongoing research literature and data related to placing handicapped children in the mainstream of preschool education, and to generate hypotheses and researchable questions for more rigorous testing in future research.

This document, written primarily for educators and parents interested in the education of young, handicapped children focuses on the review and analysis of the research literature concerned with preschool mainstreaming in the context of the present range of preschool programs.
Part II of this document includes abstracts of some of the written materials potentially useful for teachers and parents (with publishing and price information when available).

While mainstreaming seems to be a reality and shows all the signs of becoming an important part of the continuum of services to handicapped children, little is known about its effects on handicapped and nonhandicapped children. Most of the views about mainstreaming held by its proponents are based on philosophical and political considerations rather than on hard data. Krienberg and Chow (#40) provide insight into the pressures to mainstream in the following passage:

At this time, the field of special education is undergoing upheaval because of pressures from state legislatures for educational accountability; from state and federal litigation against the exclusion of handicapped children from the regular classroom, and discriminatory IQ testing; and from the reduction in local and federal funding for special education. To these pressures are added the stresses that result from requiring teachers, who were trained as specialists, to function as generalists in the classroom.

At this time, we know of no research that provides conclusive findings about the efficacy, or lack thereof, of mainstreaming preschool children.

The findings of existing research tend to be narrow; few generalizations can be made. The literature provides no clear understanding of the dimensions, variables and attributes of preschool mainstreaming, as practiced. Much of the research is poorly done. Very little of it relates directly to the concerns of administrators and practitioners. The comparative studies conducted thus far have been both inadequate and inconclu-
sive, and there is little indication that ongoing research represents a substantial improvement over that already published.

Key Terms

- The terms, "preschool", "early intervention" and "early childhood education" are used somewhat interchangeably throughout this document. Though "preschool" suggests a less structured form of programming than we believe most handicapped children require, we have used the term because of its greater simplicity. "Early intervention", as it is used here, generally refers to a structured program tailored to the needs of the exceptional child, though not excluding nonhandicapped children. We prefer the term, "early childhood education", but found it awkward to use and, consequently, the reader will encounter ECE as a substitute for the longer phrase.

- The terms, "mainstreaming" and "integrated", as used in this document, refer to the placement of handicapped children (or exceptional, or children with special needs) and nonhandicapped children in a classroom for the purpose of educating them together.

Sources of Information

Review of the literature on early childhood mainstreaming

Our search of the literature turned up only 31 articles which deal specifically with preschool mainstreaming. Only four of these are research studies. The others describe particular programs or curriculum models, or advocate particular policies regarding preschool mainstreaming.
Interviews and site visits

Since preschool mainstreaming is a relatively new research area, and much of the work in this field is, as yet, unpublished or still in progress, we had to develop close links with the informal network of researchers, policy-makers and practitioners who are actively involved in this area. We contacted a large number of people involved in the mainstreaming effort, including:

- Directors of BEH First Chance Programs that had been identified as integrating handicapped and nonhandicapped children;
- Directors of programs mentioned in articles, reports, or by researchers and practitioners as being involved in mainstreaming efforts;
- Directors of Head Start Programs involved with the 14 experimental mainstreaming projects, six of which also had BEH funds for doing training and information dissemination about early intervention and mainstreaming;
- Project administrators from the Council on Exceptional Children's Head Start Information Program.

We also conducted on site observations and interviews at 15 preschool programs in the metropolitan Washington, D.C. area.

The field work considered such things as:

- A general description of the programs:
  - nature of screening and diagnosis conducted
  - recruitment and eligibility
  - supportive services provided
  - staffing and training
- characteristics of students
- nature and extent of parent involvement
- nature of curriculum (e.g., programmed, open child-centered, custodial, etc.)
- nature of the physical plant, including special modifications and equipment
- nature of follow-up program, if any
- source(s) of funds

Handicapped children: types of handicaps, how each type is recognized and dealt with;

Tone of classroom: activity level, noise level, teacher style (especially as style relates to handicapped as opposed to regular children);

Activities involving handicapped children: constructive, directionless, group, individual, active, passive;

Interactions between children: handicapped/handicapped, handicapped/nonhandicapped;

Interactions between teachers (or teacher surrogates) and children: teacher-initiated behaviors toward children, responses of children to teacher, child-initiated behaviors toward teacher, responses of teacher to children.

Teachers provided us with their perceptions of the limitations and assets of their own programs and identified changes they felt were needed to correct deficiencies or to strengthen existing elements. Teachers were also encouraged to comment on the process of mainstreaming, their general philosophies of education and their experiences with handicapped children. Discussions also involved teacher recommendations of research.

Program administrators, teachers and parents actively involved in mainstreaming and in educating handicapped children were asked to help in defining issues and posing questions they felt should receive more attention from
applied researchers.

Analysis of the classrooms and of interviews with experienced practitioners suggested many approaches to mainstreaming at the preschool level, and clarified several potential problems discussed throughout this document.

Many people we spoke with during this project are still far too removed from the practical needs and concerns of those who work with children. (This is a frequently heard argument between researchers and practitioners in many human service fields.) We have therefore tried to be as specific as possible as to the kinds of information that administrators need in order to more effectively mainstream young children with special needs and that parents need when searching for appropriate placement for their handicapped children.

Major Conclusions

Our efforts in connection with this project have lead to the following major conclusions:

- Though there is not one "ideal" system of integration, nor one ideal degree of integration, nor one ideal curriculum, and the methods and techniques used to meet the children's needs vary tremendously, the greater the degree to which an intervention program focuses on the child's special needs with specific remedial techniques, the greater the likelihood that the child's disability will be lessened.

- Only when the primary goals are met as successfully in an integrated setting as in a segregated setting does the inclusion of nonhandicapped children become an added and highly desirable goal for
the preschool education of the handicapped child.

- The ability and attitude of the teacher appear to be the most important factors in the success of an integrated program. Parent involvement and/or cooperation to be other critical factors.
CHAPTER I

TRENDS IN THE EDUCATION OF YOUNG HANDICAPPED CHILDREN

Prior to the 1960's

As early as 1851, Samuel Gridley Howe encouraged the education of blind children within the regular public school system. It was thought that such an educational experience would enhance the social competence of both blind and seeing students. The idea was finally realized in 1900, when the first special class for blind children was created in a Chicago public school.

After this breakthrough, there was little impetus seen in the special education field for several decades. Along with other movements interested in improved and expanded human services, special education gained ground in the late 1940's. Many progressive special educators began to question the efficacy of special class placement. The literature of this period reflects this concern and deals with many of the same issues as does contemporary literature (attitudes, teacher training, social adjustment, parent participation). The most striking difference between earlier and more recent literature is that the balance has reversed. Today, most educators encourage the integration of special need children into the mainstream, while during the 1940's only a handful of progressive educators held this position.

Demands of educators, parents and government officials seem to have encouraged research in the area of integration, as well as an increase in communication and cooperation among those concerned with the issue.
In the 1950's, a series of Federal legislative provisions established small grants for research and the training of personnel in the education of children with special needs. It was during this period that research on the effects of special versus regular class placement began to produce evidence that if special class placement has any advantages over regular class placement, they are slight and not particularly meaningful (Johnson, #34).

The 1960's

In 1961, President Kennedy established the President's Committee on Mental Retardation, comprised of leading professionals in fields related to special education. The committee's recommendations, coupled with the impetus from the growing movement, culminated in vastly greater training and research funds.

As the "60's" wore on, there was a growing tendency for mothers of preschool youngsters, at all economic levels, to enter the labor market. Consequently, public and private day care and nursery-school programs rapidly developed in an attempt to meet the growing public demand.

At the same time, parent groups began to bring pressure on the courts to ensure that their handicapped children would no longer be excluded from public education. As courts and state legislatures began to respond more favorably to parental demands, school systems, which were already facing increased financial pressures on a number of fronts, desperately began searching for ways to provide services to the handicapped children they had been excluding.

Lloyd Dunn's article, "Special Education for the Mildly Handicapped--Is Much of It Justifiable?", published in Exceptional Children in 1968 (#20), set off a chain reaction in the education community. Although
Dunn was by no means the first to make the point that children from low-income areas who had been labeled educably mentally retarded appeared to do as well in regular classes as in special classes; his stature among educators and the timing of this article were factors in the study's impact.

Beginning in the late 1960's, much national attention was focused on Head Start and its attempts to provide a compensatory education for children variously described as culturally deprived, educationally handicapped or economically disadvantaged. Many of the children being served in Head Start programs were from backgrounds that made them susceptible to being labeled mentally retarded and placed in self-contained classrooms for children called "educable mentally retarded." These were children about whom Dunn said, "... we must stop labeling these deprived children as mentally retarded. Furthermore, we must stop segregating them by placing them into our allegedly special programs."

In September 1968, Congress enacted the Handicapped Children's Early Education Assistance Act, which provided funds for demonstration programs. All programs funded under this legislative act (referred to as First Chance Network) were required to be geographically disbursed, to involve parents and to disseminate program and research results. Under the Act, programs were to be coordinated with one another and were to be evaluated in order to demonstrate their effectiveness. Appropriations under the Act have steadily increased, an indication of Congress' support of the legislation and its products.

The 1970's

At one time the study of exceptional children was
neatly categorized by handicap -- the blind, the deaf, the mentally retarded, the physically handicapped, the gifted and the emotionally disturbed. The field has been broadened to include specific learning disabilities and hyperactivity, which has resulted in many thousands of additional youngsters falling within the scope of "exceptional children." At the same time, less attention is being paid to the specific kind of disability and more to the fact that each of these children, regardless of disability, is trying to cope with his unique and individual learning style and set of problems.

Researchers who had been urging early intervention for "handicapped" children began to point enthusiastically to visible changes in individual children in Head Start, and began pushing for legislation to provide early intervention specifically for handicapped children. The result of this interest is reflected in the congressional mandate (1972) that not less than 10 percent of the total enrollment in the Head Start program shall be handicapped children and that services shall be provided to meet their special needs.

In a 1970 article in American Education, Dr. Edwin Martin, Associate Commissioner for the Bureau of Education for the Handicapped, outlined the Bureau's desire to promote early intervention programs for handicapped children (#48). Another article by Dr. Martin appeared in Exceptional Children in 1972, in which he discussed the values of individualization and behaviorism in the context of needed educational changes that would foster the mainstreaming of handicapped children (#49).

In a letter sent out during August 1974 to about 100 First Chance network programs, BEH asked if they were attempting to provide an integrated experience.
Fifty-five percent of the programs responding by mid-December were integrating handicapped and nonhandicapped preschoolers on a full or partial basis.

Most states have some type of mandatory legislation requiring that at least some portion of their handicapped children be provided an education. Eight states have mandated developmental services from birth; one offers services beginning at age two; eight begin at age three; four begin at age four; and twelve begin at the age of five (see Table 1). Unfortunately, these mandatory requirements often have been ignored and, in virtually every state, many children in need of special education services have been unable to obtain them.
Table 1: Educational Services for Children with Special Needs, According to Age Eligibility*

<table>
<thead>
<tr>
<th>Beginning at:</th>
<th>Birth</th>
<th>Age 2</th>
<th>Age 3</th>
<th>Age 4</th>
<th>Age 5</th>
<th>Age 6</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Iowa</td>
<td>Virginia</td>
<td>Alaska</td>
<td>Connecticut</td>
<td>Arizona</td>
<td>Alabama</td>
</tr>
<tr>
<td></td>
<td>Kansas</td>
<td></td>
<td>Florida</td>
<td>Delaware</td>
<td>Colorado</td>
<td>Arkansas</td>
</tr>
<tr>
<td></td>
<td>Michigan</td>
<td></td>
<td>Georgia</td>
<td>Oklahoma</td>
<td>Hawaii</td>
<td>California</td>
</tr>
<tr>
<td></td>
<td>New Hampshire</td>
<td></td>
<td>Illinois</td>
<td>Tennessee</td>
<td>Maine</td>
<td>District of Columbia</td>
</tr>
<tr>
<td></td>
<td>North Carolina</td>
<td></td>
<td>Massachusetts</td>
<td></td>
<td>Minnesota</td>
<td>Idaho</td>
</tr>
<tr>
<td></td>
<td>Oregon</td>
<td></td>
<td>Rhode Island</td>
<td></td>
<td>Missouri</td>
<td>Indiana</td>
</tr>
<tr>
<td></td>
<td>South Dakota</td>
<td></td>
<td>Texas</td>
<td></td>
<td>Nebraska</td>
<td>Kentucky</td>
</tr>
<tr>
<td></td>
<td>Vermont</td>
<td></td>
<td>Wisconsin</td>
<td></td>
<td>Nevada</td>
<td>Louisiana</td>
</tr>
</tbody>
</table>

* For more complete information on type of mandate, date of passage, compliance dates, handicapping conditions and other qualifications, see the Council for Exceptional Children's "State Statutory Responsibilities for the Education of Handicapped Children," August 21, 1974.
CHAPTER II

EARLY CHILDHOOD EDUCATION FOR HANDICAPPED CHILDREN

... the experience of a preschool program is vital for the successful assimilation of handicapped children into the "normal" world, and in many instances may prepare them for public school experience. (Lewis #44)

Most educators appear to agree that early intervention for handicapped children is important. While it is difficult to prove, recent research results tend to support the belief that early and continuous intervention can lead to the prevention of more serious difficulties later.

The following passage from Siegel (#59) summarizes the predominant point of view among educators and child development specialists:

Inadequate diagnosis, treatment and psychological management in early life often cause problems of intense magnitude in later life. Exceptional children can generally be treated more effectively in the early stages and will more readily attain their optimum at maturity if they receive proper education and treatment services at the earliest possible time.

In talking about her own classroom situation, a teacher in a school for hearing-impaired children commented that there is a definite difference in the abilities of the hearing-impaired who have been in the infant program and those who came in "fresh." Our own observation of her classroom confirmed that those who had been in the infant program of the county schools had better language and social skills.

The period between eighteen months and three years
seems to be the time at which differences in perception and cognition appear between children from culturally enriched and culturally deprived backgrounds.

Adkins and Walker (#2) say that, "While we cannot precisely pinpoint the initial periods of learning readiness, there is a period between three and four years of age... during which organized and systematic stimulation, through a structured learning program, might best prepare the child for the more formal and demanding structure of the school."

Other experts in the field of early childhood development and education believe that early intervention may be beneficial, but do not believe that a child can learn either more or less efficiently during his or her first few years of life as a direct result of early intervention.

Much of the research on early intervention has involved children from low-income areas who had been labeled mildly retarded on the basis of IQ tests, standardized on middle-class populations. Test scores of such youngsters are often more a function of their socioeconomic position and cultural circumstances than an indication of organically-based retardation. Head Start was developed out of a conviction that early intervention can enhance the opportunities of such children for a successful school career.

Our review of studies that examined the short- and long-term effects of Head Start on disadvantaged children revealed intense controversies among researchers. In all but a fraction of the studies, the initial positive gains in the IQ and performance test scores of Head Start students "washed out." After several years of elementary school, children in the non-Head Start groups and Head Start children, regard-
less of the nature of the educational program used, all tested at about the same IQ and performance levels.

Critics of these studies emphasize two major issues. First, the use of IQ and performance tests as a means of evaluating programs not designed to produce cognitive gains may not be a fair measure of success. Secondly, many of the Head Start children were still going to mediocre primary schools, still living in poor environments; expecting a couple of years of preschool enrichment to wipe out the effects of the rest of a child's life is overly optimistic.

Another approach to the study of early intervention is the Cradle School Project initiated at the University of Wisconsin-Milwaukee, by Heber and Garber (#28). The project focused on children from low-income areas whose mothers have IQ's of 75 or less. Such children have a very high risk of being identified as mentally retarded. Typically, their IQ and performance scores show a steady decline from early childhood through the first years of school. The idea was to prevent mental retardation through a program of early, intensive and continuous intervention.

A paraprofessional was assigned to each experimental family and began working with child and mother, in the home, as soon as five days after birth. The home-based portion of the program continued for the first two years. At two, the children entered a day care group, at three a nursery school program, and at four, a pre-kindergarten. Special enrichment activities were provided throughout the project, and the children were tested regularly on a number of language and performance tests (they will be tested through age seven, after completion of first grade).

In a review of the findings from the first six years
of the project, Heber, et al, reported that the IQ scores of their study group children and control group youngsters were identical at 12 months of age. However, there was a 30 point difference in mean Stanford-Binet scores at 66 months (5-1/2 years). The average IQ for the experimental group was approximately 115 (ranging up to 135). Similar striking differences were noted with other tests. Clearly, the results, thus far, strongly support the belief that early and continuous intervention can have a marked effect.

While this study clearly involves a degree of intensity of programming that is not generally found in a preschool setting, the dramatic results cannot be ignored in considering the value of early intervention with handicapped children.

Despite the fact that research findings have not proved any method of intervention to be superior over any other method, existing data suggests that the more a program focuses on the child's special needs with specific remedial techniques, the greater the likelihood that the child's disability will be lessened.

Some educators who support the general concept of early intervention for handicapped children are skeptical about the value of providing intervention in a group setting. Shirley Cohen (#18) points out that, "Handicapped children may have difficulty imposing or seeing organization in a rich environment ... which may be related to problems often reported of handicapped children becoming overstimulated in what we consider good preschool environments."

Marion Blank, in Stanley (#61), also discusses some of the potential drawbacks in school-based intervention:
The group-based structure of nursery school [may help] protect the child in his efforts to avoid learning. Because so many other children are present, the child has opportunities for "appropriately" completing an activity even when he is totally unaware of the cognitive content of the task. This can occur through imitation, habit or rote associations. For example, many children happily join in group singing by uttering nonsense syllables in place of the words of the song. The presence of fifteen other voices that are singing the appropriate words easily disguises the child’s failure. The traditional group-based nursery school situation is thus perfectly designed to perpetuate the avoidance of learning in those children who have the most difficulty in learning.

The remarks by Cohen and Blank reflect aspects of the theory that some children, particularly those who are very young, slow in developing or who have severe emotional problems, should be provided with a home-based type of intervention. This can be done by training parents to teach their own children in the home setting, or by combining classroom instruction for part of the day or week with some type of home-based instruction for the remainder.
CHAPTER III

APPROACHES TO EARLY CHILDHOOD EDUCATION MAINSTREAMING

We have found that mainstreaming can mean very different things to different people. The definitional conflicts concern the way in which integration is achieved. In this section, we attempt to classify the different types and styles of mainstreaming that are either discussed in the literature or are actually being implemented in preschool classrooms.

There are two major strategies of integration:

- "Mainstreaming," where handicapped children are integrated into regular preschool classes (the "mainstream" of education);

- "Reverse mainstreaming," where nonhandicapped children are integrated into classrooms that have been designed for handicapped children.

Within these strategies there can be varying degrees of integration, from partial to complete. At this point, there is no evidence to favor either strategy or any particular degree of integration within a strategy. Most possible variations exist, but there have been no comparative studies of their effectiveness.

All mainstreamed or integrated programs focus on equipping the child with the self-help skills and behaviors that will permit him/her to function in a mainstreamed or reverse mainstreamed setting with less need for the regular teacher's special attention.

Mainstreaming can take a number of different forms. Those most frequently found are:

- Partial mainstreaming - regular
  Programs that have one or more self-con-
tained classrooms in which special need children spend all or part of their time;

- **Complete mainstreaming - regular**
  Programs where handicapped and nonhandicapped children participate in all or most activities as a fully integrated group.

**Partial Mainstreaming**

This setting (partial mainstreaming) serves most of the children who are in transitional, home or school-based programs.

The common feature of this type of setting is that handicapped children are educated separately, either as a group or individually, for a significant part of the school day or week in one or a number of nonintegrated settings such as:

- self-contained classrooms;
- resource rooms designed for handicapped children;
- special resource teachers or other professional personnel on or off the school site;
- home-based tutoring.

**Complete Mainstreaming**

The common features of this type of setting are that all of the children in the program are involved in the same activities when they are in school, and that special resources (room, services, personnel) are generally available to all children in the program.

- Selection and placement can be random or systematic.
- Attendance for handicapped children can be full or part-time.

All types of curriculum strategies and teaching
styles are represented in these settings.

Although there is no research evidence that suggests which of these strategies has the most potential for providing a successfully integrated program, our hypothesis is that "reverse mainstreaming" (programs designed for handicapped children that include non-handicapped children) is more likely to provide design features that would account for the special needs of exceptional children. As we have mentioned previously, many of the First Chance programs funded by BEH have been specifically designed and planned for handicapped children, sometimes for a particular handicapping condition and sometimes for a number of handicapping conditions. Over half of these programs are also serving nonhandicapped children, with apparent success. Obviously, further research is needed to evaluate the relative success of the two approaches.

Two other administrative strategies deserve mention here because they are at least supportive of mainstreaming as a concept. Many programs that serve only handicapped children are designed to prepare the children with the self-help skills and behaviors necessary for the children to be successful in integrated settings. These programs are often referred to as "transitional" programs. Also, many programs have provisions for home-based teachers or tutors who work at home for varying amounts of time with handicapped children and their parents. Some children are only served in the home-based setting and others are included in the group setting as well. Still other programs are completely home-based. This type of instructional service can be a valuable tool in preparing the handicapped child for greater participation in the group, whether self-contained or integrated.
Segregation or integration is not the critical issue. The values and attitudes of teachers and their effects on the pupil's self-perception and performance are the key questions. Segregation without program is just as destructive as integration without understanding. Returning to an educational system which ignores the promise and possibility of the special class would disregard the imperatives of educational history, which have mandated an alternative to wide-range heterogeneity.

Valletutti (#64)

Overview

In this overview we highlight the various factors indicated by researchers and practitioners as most critical in the design, operation and evaluation of preschool mainstreaming efforts. Not all of these factors have been subjected to hard empirical investigation but there is considerable agreement among researchers and practitioners that the following points represent key factors in an early childhood program.

Goals

- A clear set of principles and goals, preferably within a theoretical framework, to provide structure and general direction as well as to aid in evaluating the program and in making needed changes.

Program Design

- Some articulated guidelines to assist in initial selection of handicapped children and in placement of all children;
- Curriculum and scheduling that are highly struc-
tured, yet remain flexible and individualized.

Assessment and Evaluation of Program

- An instrument, mechanism or combination of ways to chart the progress of each child along a number of dimensions.

Teachers

- Teachers who are:
  -- warmly authoritative
  -- committed to the program
  -- willing to spend time in careful planning of the curriculum and review of the progress of the children
  -- accepting of the concept of mainstreaming

- A sufficiently low pupil-teacher ratio to permit individualized attention to students.

There is some controversy as to the ideal ratio, with suggestions ranging from 5:1 to 8:1.

- Teachers who stimulate and promote a healthy self-concept in all children.

- Teachers who stimulate and promote positive, cooperative interaction between handicapped and nonhandicapped children.

Facilities and Materials

- Physical facilities appropriate for the special needs of the children being served;

- Appropriate materials that are available according to the special needs of each child.

Parents

- Parental involvement in the form of home visits and/or the parents' taking part in the planning for and operation of the program.
Supportive Services

- A supervisory staff to provide guidance and direction for the other staff members on the focus of the curriculum, making necessary changes in scheduling, teacher or student assignment. The supervisory role also seems to be instrumental in maintaining a positive atmosphere, high expectations for the children and in resolving staff discord, should it develop.

- Supportive services that are available to all children who require them (physical therapy, speech and hearing therapy, etc.).

Structuring the program around goals

Stearns (#62) concludes that improvement in specific cognitive skills tend to reflect the goals that are incorporated by a particular preschool program. While there is a general tendency for program results to be related to the stated goals, the amount of change in any specific skill area depends on:

- the explicitness of the goals in terms of performance expected of the children;

- the degree to which the method designed to achieve these goals with children is congruent with principles of child development, has been empirically tested, and is appropriate to the particular children involved;

- the relative amount of time spent on the goal and the fidelity with which the methods are implemented; and
Program design

Many educators believe that all two-to-nine-year-olds -- not just the 10-20 percent with special social-emotional-educational needs -- profit from multi-aged groupings and highly individualized curricula. However, (in our view) it is unlikely that such an ideal situation will come about in the near future. Most schools are operating in the traditional age-graded, ability-grouped mode. Consequently, we must respond to the situations that most six-year-old children will encounter upon reaching first grade.

Most public kindergarten programs are designed to provide children with the behaviors and skills necessary to succeed in first grade. If mainstreaming into regular kindergarten and elementary school classes is a goal of intervention programs, we recommend that pre-kindergarten efforts be geared toward enhancing that goal. First, however, the specific skills and behaviors required for success in elementary school and the "covert and subtle" expectations that exist in teachers' minds, if not in the literature, need to be drawn out and analyzed more fully.

An obvious difficulty in attempting to spell out these requirements and expectations is that they vary greatly among school systems and, indeed, among teachers. A variety of very different tests are used with preschool children to predict the likelihood of success in first grade and none is universally accepted.

Research findings clearly indicate that highly
structured programs have a greater potential for producing cognitive and performance gains in children with special needs than does the more traditional "laissez-faire" situation in most preschool programs. Important components of potentially successful programs seem to be that they operate within the context of a goal-oriented, theoretical framework and include some kind of internal evaluation system so that the program staff can both evaluate its own performance and obtain the necessary data to determine how effectively goals have been achieved and how relevant the theoretical framework has been for the children served by the program.

Individualization and Flexibility.

"Structure," which is necessarily imposed by goal-setting, of course, should not imply rigidity and inflexibility. Indeed, most advocates for mainstreaming of handicapped children qualify their support with statements to the effect that individualization and flexibility in goal setting, program design, curriculum and scheduling are critical to the success of an integrated program (Beery, #9 and Martin, #49).

The individualized, flexible, responsive learning situations advocated by many writers in this area have great potential utility for education, in general. It may be that many preschool settings approximate ideal learning conditions to a much greater extent than do primary and secondary classrooms. Swap (#63) reminds us that: "Teachers of preschool children, not bound by . . . tradition, have a unique opportunity to forge new teaching goals and strategies for reaching them." Swap presents a succinct argument in support of individualizing instruction. While focusing
specifically on children with learning disabilities
her comments clearly pertain to children with a
broad range of special needs:

Children with serious learning dis- 
abilities help us to recognize that there
are many routes to learning the same infor-
mation, and enable us to be more creative 
in designing and selecting materials to pre-
sent. It seems that one of our objectives 
in teaching should surely be to encourage 
and strengthen a child's unique abilities 
rather than to attempt to promote unifor-
mity in our students' approach to learning. 
In fact, many children who have been labeled 
as high-risk students because of learning 
or emotional problems may not be suffering
from a profound deficit but as Werry, et al 
(#68) explain..."...from a biological
variant made manifest by affluent society's
insistence on universal literacy and its
acquisition in a sedentary position."

Eleanor Grater Lewis (#44), director of an inte-
grated early childhood program in Lexington, 
Massachusetts since 1960, describes some aspects of
flexibility in her program;

With a good teacher-child ratio, not
more than eight-to-one, there is always some-
one free to work with one child if necessary. 
There are extra rooms where children can
go to "blow off steam," sit quietly, or 
hear a story. Many alternatives enable the
staff or school to provide great flexibility.

Some handicapped children will not be able to 
participate in group settings to the same extent 
as will nonhandicapped children, and may have to par-
take for less time each day or for fewer days 
each week. Given this probable differential in
tolerance to group situations, there is some con-
troversy as to the optimal ratio of handicapped to 
nonhandicapped children. No one seems to have de-
vised a specific formula, but a number of program operators suggest at least an even split, with the nonhandicapped constituting at least half the class.

Dunn, in his 1968 article (#20), advocates the use of flexible groupings to promote individualization. He suggests that, "With earlier, better and more flexible regular school programs, many of the children should not need to be relegated to the type of special education we have so often provided."

MacMillan (#46) sets the issue of mainstreaming in perspective when he points out that:

... the notion that special education and self-contained classes are synonymous must be rejected. The larger issue, and one which if debated and researched could prove fruitful is: to what extent, and under what circumstances, can a wider range of individual differences be accommodated in the regular class than is presently the case.

Assessing and evaluating programs without a million dollars

Research that is easily disseminated is ultimately research that needs no dissemination at all. It has been cultivated in the classrooms while meeting the teacher's most pressing need -- finding solutions to the problems of why a child does not learn and how he can be helped to learn.

Blackman, (#11)

Teachers need to know how to handle a specific child with a specific problem. Blackman asks: "Who should establish the research priorities and set research styles?" He suggests that the practitioner is the one who must decide what is relevant; that the services needed should determine the research that is done.
Programs only improve if the people operating them are aware of and can correct their mistakes. An important aid in any classroom is an instrument or some form of an internal evaluation mechanism that provides teachers with continuous and rapid feedback on the effectiveness of what they are doing. This is particularly important in the integrated setting because of its complexity and the great individual differences among the children.

An internal evaluation system which includes in its design a capability for identifying the degree to which each goal has been met, for pinpointing those aspects of the program that were most crucial to attaining a certain objective and for revealing the gains in cognitive, physical, psychological and social development obtained for each child in the program serves many functions. Data obtained from an internal evaluation system provides the necessary base for modifying, eliminating and adding goals. Each mechanism which has been adopted for meeting the goals can be assessed, then modified or replaced. Evidence that certain goals are unrealistic for children having one or a given mix of characteristics (including specific handicaps) can surface.

The evaluation system that is keyed to the goals of a program and to the mechanisms selected to achieve those goals not only serves to strengthen the individual program; it also makes a knowledgeable dialogue possible among practitioners involved in early childhood education programs.

There are several different ways in which assessment and evaluation systems can be incorporated into preschool programs. We have concluded that evaluation of a particular child is best accomplished
by actually working daily with the child in a situation in which the research and evaluation are integral parts of the planning and development program.

**Research-Service Model**

An example of a working model of this approach is Guralnick's "research-service model" (#27) that permits the teacher to collect data that provides precise ongoing evaluation of the overall program and of the progress of each child, as well as his/her own teaching.

There are two key features in the research service model:

1). Each component of the program (i.e. number concepts, interaction skills) is broken down into small and easily manageable units of instruction. Each unit contains detailed teaching procedures for attaining clearly defined learning objectives.

2). Each dimension of the child's academic and social developmental level is assessed and continually reassessed by a combination of techniques. With this approach the children are measured along a number of developmental dimensions, allowing for more individualized instruction. Reducing the influence of general, and often misleading, assumptions about development that result from such one dimensional assessment techniques, as the IQ is another highly desirable benefit of this model.

The information that emanates from the research-service
model can be used for purposes of research as well as for: • diagnosis • planning • curriculum development and change • program evaluation • teacher evaluation • parent information. Such an approach permits each early childhood development program to become a self-contained unit that simultaneously provides for educational services and the conducting of systematic research.

Methods of assessment and evaluation

Within a model that provides both service and research there are various ways of collecting information and various types of information to collect. In the past most program evaluation attempts have taken the form of instruments that focus (ostensibly) on program outcome (IQ and performance tests mostly). These "program outcome" approaches to evaluation do not make use of the "process oriented" information that is always available in the classroom, such as, information about teaching styles and differing responses in children; affective and social behavior of the children as related to the general tone of the classroom on different days; constructs of interactions between the school, parents, children, teachers and the community.

Kirk (#39) points to the need for a preschool examination that will provide information about an individual child without any reference to whether he's higher or lower than his classmates. Koppman in Reger (#55) indicates that it is necessary to know not only the child's level of functioning in a particular area but, even more significantly, to be able to examine the kinds of mistakes the child makes.

Anne Sanford from the BEH funded Chapel-Hill Outreach Project (#57) has developed a diagnostic and
prescriptive instrument, the Learning Accomplishment Profile (LAP) that incorporates some of these process-oriented elements into its structure. Guralnick at the National Children's Center in Washington, D.C. has trained his teaching staff to use the LAP and a number of instruments he has developed to chart the daily development of the children in the social, emotional and cognitive areas.

The Judge Baker Guidance Center in Boston is in the process of developing a "needs assessment" kit to provide Head Start staff, parents and others with easy-to-use techniques for individualizing instruction. The kit includes a developmental screening instrument to determine which children will have special needs and what they are, classroom assessment instruments, and methods and guides for observing and recording children's behavior and identifying their strengths and weaknesses.

This approach to evaluation has the advantage of being done in the natural environment of the child with his own teacher as the evaluator. Further, it permits the assessment of a wide range of developmental skills, tested in natural learning situations over a considerable period of time.

Direct observation

In order to understand the social behavior of individuals and the processes of groups it is necessary to study the actual interaction of people in various kinds of situations that represent typical social encounters (Baldwin and Baldwin, #5). One of the most potent techniques for this type of study is direct observation in a natural setting.

Interaction and behavior counts, body language,
physical location, time sampling and video taping are some examples. (See Allen, et al, #3; Kirk and Gallagher, in Jordan and Dailey, #36; Prescott, #54; and Webb, et al, #65: All discuss the use of observation techniques.)

The use of direct observation is of special significance to preschool children, since they cannot yet deal dependably with abstracted concepts of formalized testing situations. For example, when gathering information on who children like most and least, the techniques of direct observation yields much more accurate meaningful information than does asking a four year old to identify his/her "best friends" (see Stearns, #62 and Moore #51). The child's responses to the adult's question, who do you most like?, can be influenced by several factors besides the child's true feelings. Also, there is the problem that even knowing who the children select as most desirable and least desirable as friends may still be of little value in determining the reasons why specific children are rejected and others are not.

Considering all the problems in doing this kind of research, systematic, direct observation of social interaction patterns appears to be the best approach for teasing out the many complex variables associated with social interactions, personality development and self concept in young children.

**Mixed strategy**

Gallagher (#24) points out that: "While many of us have been trained to think in terms of the use of standardized tests for measurement, many of the most useful kinds of information for evaluation are simple -- "counting the number of contacts a child might have; anecdotal records, testimonial letters,
evidence of attendance at meetings. Such measures, although not strong enough individually, can create a total pattern which reliably indicates the efficacy of a program or a child's level of performance.

As implied throughout this section the ideal research and evaluation model would involve using a mixed strategy, since no one measure for a child can provide for a full picture.

Using a mixed strategy means thinking not only in terms of a child's abilities and personality but also in terms of his environment; not simply relying on the evidence from one source of information, one form of evaluation, but rather by using many intersecting and overlapping pieces of information. (Levine, #43, Webb, et al.,#65, Gallagher,#24).

Evaluation of preschool programs which include handicapped children involves testing, assessing and observing in a way that not only allows description of the effects of the program on the participants, but also enables adjustments to be made that will help the programs meet individual needs of all involved.

The Teacher

The collaboration between teacher and child is incredibly complex. Gallagher (#25) captures a sense of the critical importance of the teacher:

A generation of research personnel in the educational field has matured with the belief that the ideal research project is an evaluation design carefully patterned after a biological medical research paradigm. In the most careful educational research projects, the students are randomly distributed into control and experimental groups. The experimental group gets the treatment (often a new program of instruction), and the control group
receives nothing or the equivalent of a placebo. During the period of the experiment, frequent measurements and re-examinations are made to chart the course and effectiveness of the treatment.

The teacher-pupil interactions that were the essence of the measured "treatment" were considered equivalent to a 5 mg. pill in a medical experiment. Often, in the analysis of results, it was assumed that one pill was pretty much the same as another; i.e., that, despite any personal misgivings of the investigator, any teacher administering the educational "treatment" was pretty much the same as any other teacher.

The crucial difference between medical and educational research is that the biochemist knows in great detail what is in his pill, but the educator has little or no idea what is in his treatment pill, namely, the teacher-pupil interaction. As a result, the usefulness of information coming from these evaluation studies for either theoretical or practical applications has been limited, to say the least.

Weikart's (#66) summary of findings on the characteristics of a successful program points up the pivotal role the teacher occupies in the success of a program.

- a clear rationale for the programs that provides a framework for classroom operation;
- team teaching;
- supervision by an experienced teacher, focusing on goals;
- weekly planning, and daily review and revision by teachers;
- all teachers were highly involved and committed;
- expectations for student performance were maintained at a high level;
- staff communicated frequently, well and with mutual respect;
- home visits by the teaching staff and active involvement by the mothers;
- heavy use of language in the classroom.

"The most important resource in any classroom is the teacher." Anne Beeler (# 8) is the source of this quotation, but the same thing is said, at some point, in any discussion of the education of children. Well-designed programs may improve the learning environment in terms of materials and resources, but the "quality of the people who work with handicapped children [is] the central determinant of the quality of the educational experience. The special classroom was no panacea; neither is mainstreaming" (Hobbs, #29).

In fact, in a mainstreamed situation, the challenges to the teacher increase dramatically. Where handicapped and nonhandicapped children are integrated, the range of abilities, interests and social relationships takes on a complexity that can confound even the most gifted teacher. No matter how good a teacher is, (s)he will find it difficult to deal with certain children. It is important that a program director take this into account and assign children accordingly.

As Valletutti explains (#64):

The acceptance/rejection order of students by teachers is specific to a particular class and will change when class composition is altered. Ideally, before placing a special child into any class, the attitudes and values of the teacher should be carefully and precisely delineated.

A real advantage that the preschool classroom has over the elementary school classroom
is that there are usually two teachers in each class. This means that they can trade off responsibility for particular children, or each can be responsible for half of the class, or each can deal with the children (s)he feels most capable of handling.

On the other hand, this kind of cooperation means that the two teachers, be they both professionals, or professional and paraprofessional, or professional and parent, must share a comfortable working relationship.

In the past, preschool teachers have sometimes ignored the special needs of particular children, either assuming that they would "outgrow" the needs, or they would not accept handicapped children into their program at all, fearing that too much time would be taken away from the other children and be too disruptive of the routine. With mainstreaming, the emphasis shifts from whether to deal with a child to how to deal with a child. Some teachers welcome working with a variety of children with a variety of needs, whatever they may be, and consider the variety to be a stimulus to all concerned. But other teachers want homogeneous groupings, feeling that if everyone is at the same general level, they can all progress more rapidly.

Barngrover (#7) interviewed elementary school teachers, administrators and school psychologists about the mainstreaming of mildly exceptional children. He found that more classroom teachers favored segregation, whereas more nonteaching educators preferred integration.

A study comparing the goals and objectives of day care operators with those of nonteaching "experts" found that the day care operators' objectives reflect
a need for a smooth, trouble-free program, emphasizing such objectives for the children as being able to follow commands and to take care of their own physical needs. On the other hand, the "experts" focused on more long-range objectives, such as "social cooperation" and the "use of all their senses" (Peters and Marcus, #53).

Since there are no studies on the attitudes of preschool teachers toward mainstreaming, we looked at the literature on elementary school teachers. Some of the findings were:

- Attitudes vary according to the age of the teacher, with the younger, less experienced teacher feeling more favorable toward mainstreaming than the older, more experienced teacher (Jordan and Proctor, #37; Jacobs, #32).

- Attitudes vary according to the type of disability or handicapping condition -- physical disabilities arouse fewer negative feelings than do cognitive deficiencies, emotional problems, or seizures (Panda and Bartel, #52, Shotel, et al, #58).

- Teacher training, including the provision of information on the nature of handicapping conditions and on strategies for dealing with them, increases the teacher's acceptance and willingness to deal with the conditions in some, but not all, cases. (Jordan and Proctor, #37; Jacobs, #32; Lovitt, #45; Yates, #69; all found that Lennington, #42, found no significant change.

- Teachers do feel the need for supportive and resource services when dealing with handi-
There are several problems with the available data, however. Studies are widely scattered. Each deals with different ages, different disabilities and different definitions of disabilities. The studies use different testing instruments, none of which has been really adequately validated. Also, we do not know to what extent attitudes of preschool teachers resemble those of elementary school teachers.

It appears that the preschool teacher is more accepting of individual differences and "acting out" behaviors, and more accustomed to flexible teaching strategies and individualized instruction. We have found no studies which document the similarities and differences between preschool and elementary school teachers, or between teachers of the handicapped v. regular teachers.

Braun and Lasher (#13) feel the most important characteristics of a teacher are:

- the ability to objectively observe young children;
- an orientation toward child development that emphasizes the child's ability to learn;
- the ability to translate abstract concepts into concrete operations;
- an orientation toward personal growth, her/his own as well as that of her/his pupils.

Beyond these characteristics, Hobbs (#29) outlines requirements for the teacher of children with special needs:
The teacher should be equipped and trained in remedial educational principles and should appreciate the value of supportive as well as compensatory training. The teacher should be prepared to handle the behavior problems that arise from frustration and failure within the student population; consequently, each teacher must be well-grounded in psychological principles of counseling and educational guidance.

This is a large order! It means that extensive training is required for any teacher who must deal with the multiple needs of an integrated preschool classroom. At present, early childhood education students seldom receive any courses in special education which would prepare them for working in an integrated class; and this is a serious deficiency.

Teachers in integrated classes require rather specific skills in diagnosis, needs assessment, individualization, behavior modification techniques and curriculum development, skills in observation, a working knowledge of developmental principles and the ability to call in resource people when needed. They also need a systematic assessment of what their needs are in relation to curriculum -- information about handicapping conditions and materials and teaching methods designed to meet the needs of children with specific handicapping conditions are a few examples (Latane, et al, # 41; Braun and Lasher, # 13).

Regular inservice training in the form of role-playing, discussion groups and frequent staff conferences, plus the use of anecdotal records and diagnostic-prescriptive testing within the framework of the research-service model, are valuable aids to teacher training. They not only allow the teacher to record valuable information about the children in
a systematic way, but, in the process, to learn to observe the children objectively, within the framework of the classroom and, ideally, within the family and the community as well.

The teacher sets the tone for how children in any class interact with one another. His or her attitude toward handicapped children and their specific handicaps greatly influences the children's social adjustment.

Since it is often difficult for preschool students to generalize their experiences from one situation to another or to "put themselves in someone else's shoes," social competency must be taught by direct intervention. Relying on spontaneous interactions usually is not sufficient (Allen, et al # 3; Devoney, et al, # 19).

One of the programs we visited was the Montgomery County (Maryland) Program for the Hearing-Impaired, directed by Dr. Edna Monsees. Eight children with no hearing impairments were integrated with the eight hearing-impaired children two afternoons each week. It was early in the year and the teacher (Ms. LaPorta) pointed out that the hearing-impaired children had become quite "groupy" and tended, when left to their own devices, to exclude the normal children. The observer saw this happening during the free-play period, but when the teacher seated the children alternately (hearing-impaired, then no hearing impairment) around the table to use the clay, the number of verbal and physical interactions increased dramatically as they all shared and talked together comfortably, each in his own way.

The literature provides several suggestions for helping children develop and maintain positive social
interactions:

- **Structured play**, such as described in the anecdote above, to provide behavior modeling for the handicapped children;

- **Pairing** of lower functioning with higher functioning children in structured ways for small group activities or tutoring (Chaires, in Johnson and Blank, #33; Beery, #9; Glass, #26);

- **Role-playing** and **dramatic play** for older preschoolers;

- **Discussion groups**, such as the "Magic Circle," which focus on making the children aware of thoughts, feelings and actions, and are designed to develop self-confidence and skills in interaction and communication.

**Teachers are the most important resource in the classroom. It is their daily interaction with the children that is the essence of any program. But teachers can do an effective job only in the context of a well-defined program with strong mutual support, inservice training and positive reinforcement (among the staff).**

**Supportive Services**

An important factor in a well-planned and well-executed preschool program within the mainstream is the availability of supportive services from both professionals and paraprofessionals. Our contacts with practitioners and our direct observations of several preschool programs demonstrate that services from professionals such as psychologists, social workers,
speech therapists, physical therapists, physicians and special resource teachers should be available to the regular preschool teacher.

Studies that examine teacher opinions about mainstreaming clearly indicate that regular classroom teachers are more willing to accept the special need child if resource teachers and other supportive services are readily accessible (Johnston, #35; Edelmann, #21; Yule, #70; Syracuse University, #31).

The employment of trained paraprofessionals and the active participation of parents can serve to increase the adult:child ratio (Karnes, #115).

Unfortunately, many preschool programs do not have adequate support services. Although it seems obvious that handicapped children often need extra support, provisions for these supportive services are often sacrificed because of lack of funds or because of poor administration. Sometimes administrators, who have little experience in dealing with handicapped children, operate under the apparent belief that young, handicapped children need fewer services than do older children, and they expect that the regular teacher will be able to cope adequately with all of the children's needs.

Curriculum and Materials

Some educators believe that few special considerations or curriculum changes are necessary for children with handicapping conditions; other feel that it is important to identify the specific impairment and to treat the deficiency by direct remediation within the context of a highly structured individualized program. We mention this discrepancy not to draw conclusions about the "correct" position, but merely
to highlight a conspicuous difference of opinion about which "pill fits the illness."

Studies have been undertaken in attempts to determine which curriculum approach is most effective with various types of handicapped children. Head Start programs have served as the proving grounds for a variety of innovations in education, including curricula for disadvantaged preschool children.

Studies done to determine the effectiveness of Head Start have focused on the styles of regular (i.e., "traditional") and various experimental programs and has attempted to identify those program strategies and curriculum models which lead to the most consistent and long-lasting changes in achievement and IQ scores. A few studies have attempted to identify the key variables within the various models that seem to enhance program success.

The short-term results of Head Start studies suggest that traditional approaches which characterize most Head Start programs and, indeed, most preschool programs, have been less successful in producing cognitive gains than have any of the experimental models. Specifically:

1. Students who had been in traditional programs showed greater short-term gains in IQ scores than did children who had remained at home.

2. Students who had been in experimental Head Start programs showed greater short-term gains than did traditional program students.

At first glance, these findings suggest that curriculum type and strategy are critical factors in a successful program -- one that produces an increase in IQ score. However, in all but a fraction of the
studies, the initial positive gains attributed to Head Start "washed out." After several years of elementary school, the control, traditional and experimental groups all tested at about the same IQ and performance levels.

A number of investigators involved in this type of research developed structured curriculum programs that they believed would have a positive effect on the cognitive development of disadvantaged children. When tested, however, most students also suffered from "wash out."

David Weikart claims somewhat more success in identifying some critical variables that seem to insure a greater measure of success in obtaining and sustaining long-term performance levels. In his now classic and thrice-replicated investigation begun in 1967, Weikart incorporated three curriculum models into the Ypsilanti Perry Preschool Project: 1). a traditional child-centered program; 2). a cognitively-based program derived from Piaget's theory of intellectual development; and 3). a program using Bereiter and Engelmann's (#10) task-oriented language training curriculum. Children were randomly assigned to one of three curricula and tested on a variety of measures at the start of the program and at various times thereafter. The measures included three IQ tests: the Stanford-Binet, the Leiter International Performance Scale and the Peabody Picture Vocabulary Test. The curriculum models appeared to have equal success in raising the IQ scores of the children on a short- and long-term (several years) basis. Weikart concluded, therefore, that the curriculum model itself was not the critical factor accounting for intellectual enhancement.

45

53
Karnes, in Jordan and Dailey (# 38), said that:

Contrary to Weikart's findings, most studies comparing structured programs with a traditional model have found that structured, cognitively based programs with an emphasis on language development have the greatest impact on the intellectual functioning and academic progress of the children.

Both Karnes and Weikart identify characteristics of programs that appear to account for success in their respective studies. Their findings differ significantly only in that Karnes includes specific curriculum components, whereas Weikart does not.

Karnes summarizes her findings and those of others relative to successful program characteristics in the following way:

- A carefully defined approach for teaching young children, with a strong theoretical orientation.

- A mode of operation which includes daily allotments of time for continuous inservice training, curriculum development, daily planning and critiquing of instruction, a high adult-child ratio (one to five), and supervision.

- A curriculum for the children which attends to individual needs and fosters the development of (a) cognitive language; (b) motivation to learn; (c) self-concept; (d) social skills; (e) motor skills, and (f) information processing.

- ... Other important considerations of successful programs seem to be: feedback directed to the child as to the appropriateness of his
responses, reinforcement of learnings, provisions for repetition and overlearning, and concern for helping the child transfer learnings. Consideration must also be given to providing appropriate instructional materials and equipment to carry out the intent of the program. Involvement of the family in the education of the young child is also felt to be a component of a successful program.

Many educators suggest that the curriculum materials are ancillary tools and are not really very important in doing much beyond providing a focus for the teacher and the child. These educators believe that the teacher is the critical factor in the process of education and that his or her ability to motivate the child toward a desire to learn and to maintain that outlook is the critical means by which education takes place. Weikart's research, would support the view that both the style of program and the curriculum content are secondary to other factors that are associated with the motivation and commitment of the staff.

Other researchers, like Englemann and Becker (the DISTAR curriculum developers) believe that the curriculum does matter and preliminary findings would suggest that the use of DISTAR has, in fact, produced significant short-term gains in cognitive performance.

At the 1974 Conference for the National Association for the Education of Young Children, there were literally hundreds of brightly colored, appealing toys and pieces of equipment for sale to early childhood programs. A growing number of these materials are advertised as being designed for children with a variety of disabilities. However, there is a conspicuous
lack of information about the efficacy of these materials, either from the developing companies making the claims for their suitability or from outside researchers. Furthermore, many of the materials are sold without instructions to guide teachers in the proper use of the material.

The fact remains that millions of dollars are spent each year by parents and schools in the purchase of toys and other equipment. Most toys are designed to develop a set of skills. More information and research is needed to assist parents and teachers in understanding the purposes of specific toys and the skills involved with using them.

Many early intervention programs for handicapped children have found it necessary to teach children how to play with toys as well as with each other. A staff person from one program we visited has done an extensive search for research or descriptive literature that would guide her in selecting and using materials that had evaluated the use of commercially available materials, either with handicapped or non-handicapped children.

The implications of research on this subject for integrated settings are considerable. For one thing, though children in an age-grouped setting are chronologically the same age, the handicapped child will probably be slow in developing in at least one dimension. Consequently, consideration will have to be given to providing a wider range of curriculum materials than might have been previously offered to that age group.

For instance, although Montessori classrooms are generally multi-aged settings, classrooms are designed so that areas within the classroom are stocked with ma-
terials for certain age groups. If the handicapped child is not ready to use the same material as others of his age group, he may suffer a loss of self-esteem and an overall sense of failure and frustration. Consequently, the teacher in an integrated classroom may have to plan carefully so that the handicapped child does not feel conspicuously out of step with his/her nonhandicapped classmates.

Physical Environment and Facilities

The arrangement of the physical environment in the classroom is an important consideration when planning and operating an integrated preschool program (Evans, #23; Beeler, #8; Responding to individual needs in Head Start, #56; Abeson and Blacklow, #1; Anderson, #4; Braun, #14). While the organization of the physical environment is important for all handicapped children, it is especially so for children who are physically and visually impaired. Quite simply, many physically and visually handicapped children cannot participate in programs which do not make proper allowances in architecture and classroom arrangements.

Another group of children who have special needs in relation to the physical environment are those who are prone to be hyperactive, emotionally disturbed, or who are learning disabled.

Some educators believe that these children should be in environments that regulate such factors as the number of children, the number of adults, and the noise and activity levels, in order to enhance the ability of these children to concentrate and to learn (Beeler, #8). Others (Cohen, in The implication, #18) disagree, arguing that a goal of education for such children should
be to help them adjust to normal environments. However, there seems to be widespread agreement that a dependable, structured environment is desirable for handicapped children and, indeed, for most children. A disorganized, rapidly changing physical environment can add to the problems that many handicapped children have in ordering their perceptions of the world.

In short, careful planning for room arrangement and learning materials is not only a necessary component of an integrated program, but it can help both handicapped and nonhandicapped children to develop a sense of stability, security and order (Evans, #23; Beeler, #8).

The most frequently mentioned factors to be considered when planning for the integration of handicapped and nonhandicapped children in the same preschool classroom include:

- accessibility of classroom to entrance;
- placement of furniture;
- accessibility and safety of equipment;
- transportation;
- provision and space for special equipment (wheelchairs, ramps, etc.);
- allowances for small-group and one-to-one work;
- space for "quiet times."

Parent Participation

In order to provide the best climate and training for the handicapped child it is imperative that parents' involvement be sought, cultivated and acknowledged as extremely valuable.

(Cansler and Martin, #17)
Educators who work closely with parents are convinced of the importance of family involvement with preschool programs. These educators point out that parental involvement will not only strengthen the efforts of the school's program, but will also provide parents with the opportunity to experience the satisfaction and pleasure of sharing in their child's successes.

The research on parental involvement, though limited and inconclusive, supports the opinion that parents' participation is a critical factor in the success of a mainstreamed program. For example, a research project directed by Susan W. Gray, in cooperation with the public schools of Murfreesboro, Tennessee, demonstrated that early intervention programs for disadvantaged children that involve parents are more successful than programs that only give assistance to the child.

Many Head Start program researchers, in addition to Gray, conclude that intensive parental involvement is an important component of programs that produce positive changes in intellectual development. We were unable to locate studies that isolate and evaluate per se. The results from Head Start may be characteristic of programs dealing with children from low-income families. However, it would seem logical that a program's involving parents enhances the possibility that continuity will be built into the child's learning processes, thus focusing the attention of significant others on desired and desirable goals for learning (Zigler, # 71; Cansler and Martin, # 17).

Consequently, a positive attitude on the part of educators toward the parents' ability to participate in a program should foster a better education for the
Although most researchers, program directors and teachers now operate on the assumption that some kind of parent participation enhances the effectiveness of an educational program, there is very little data which specifies the type of participation which is most beneficial.

We conclude with the observation that it may be that, in most cases, the handicapped child cannot afford the luxury of just having a good time at nursery school -- the frequently quoted axiom "a child's work is to play" is not the handicapped child's privilege. (S)he has real work to do and for a parent or teacher to say that this child should be allowed to simply flow along with the nursery group, to be happy and to play, is denying that child his right and his need to be prepared to function on a more demanding level later -- otherwise, he may be removed from the mainstream after reaching elementary school, with far more negative effects.
MAJOR ISSUES IN MAINSTREAMING

The basic objectives of a mainstreamed early childhood educational program are similar to those of any educational program designed to serve the preschool child: to provide an environment that promotes growth in the cognitive, physical, psychological and social development of the child.

Within that broad framework, however, are several objectives that appear to be particularly important in serving the handicapped child:

- to draw on and develop the child's potential to the maximum.

- to carefully and deliberately foster the handicapped child's self-concept and social adjustment. Obviously, the child who is different enough to be categorized as handicapped may potentially have problems in these areas. An important objective of a mainstreamed preschool program is to be aware of and minimize these problems.

- to enhance his/her ability to participate in and benefit from later educational experiences, whether in segregated or integrated settings.

Another but secondary objective is to enhance his/her ability to participate in, benefit from and contribute to the larger society. For that reason, preschool mainstreaming has benefits that cannot be overlooked.

Assessment and Placement of Young Handicapped Children

Learning and developmental problems are associated
with all handicapping conditions. Some are related to intellectual functioning, some to behavioral and social functioning, some to motor development, and some to a combination of these factors.

Methods or instruments that assist in assessing the nature of the child's disabilities to a degree that permits educators and parents to make appropriate educational decisions have traditionally been IQ tests.

Kirk (in Jordan and Dailey, #39) summarizes the dilemma of the educator who is trying to make educational decisions on the basis of an IQ test score:

If we can't assess children in terms of potential treatment, we have a problem. This is one of the gross limitations of IQ scores. What good is the IQ from the point of view of treatment and education? It is merely an average score of a lot of mental function, partly dependent upon the environment and partly upon heredity. It's just like saying, "This river's average depth is 3-1/2 feet," and when you start to walk, you find that it's only two inches on the sides and 10 feet in the middle, and you can sink or swim.

Another problem with the use of IQ scores is that one child with an IQ of 70 often differs greatly from another child with the same IQ. Their handicaps may be very different, which means their educations have to be different.

There are several other problems with using only standardized, normative tests:

- The fact that young children are notoriously unreliable subjects for any kind of testing;
- The tests are frequently difficult to administer;
- Many of them were developed for particular studies with minimal pretesting and replication to substantiate validity or reliability;
• Others are geared to a specific segment of the population (e.g., the Preschool Inventory, standardized on a Head Start population, has questionable value when used for a middle-class sample);

• Different disabilities also require different testing techniques, using alternate modes of communication and different emphases.

Another problem is that, at present, there are too few people trained in the process of identification, diagnosis and assessment of children under six, particularly those with handicapping conditions.

The important issue is not only the particular score a child receives on a test, but the changes in the score for that child over time and the reasons for the changes.

For thorough descriptions and explanations of existing testing instruments for preschoolers, see Meier in Hobbs' Volume II (# 29); Evans in Colvin and Zaffiro (#22); and see Buros (# 15) for analysis of validity and reliability of the specific testing instruments.

The range of tests used by individual programs varies tremendously. For example, in a survey conducted by the Chapel Hill Training-Outreach Project, it was revealed that a total of over 30 different kinds of assessment instruments and procedures were reportedly used by the 21 specially-funded Head Start programs in Region IV, with the number used by individual programs varying from twenty to only one.

Small-scale programs, not affiliated with universities or other "expert" sources of testing and support, tend to avoid testing. Although teachers informally
evaluate their pupils all the time, many avoid systematically testing them, feeling that they are not really qualified to do so because they are called "teacher" and not "psychologist."

However, more and more programs use diagnostic-prescriptive instruments such as the Learning Accomplishment Profile (LAP) discussed in the next section, Internal Evaluation. This kind of instrument provides information on the effectiveness of the program, while assessing the progress of each individual child.

Who should be mainstreamed?

There seems to be a lack of agreement on the standards to be used in determining whether or not to mainstream particular children. Many program operators with whom we spoke indicated that after conducting a thorough review and assessment of each applicant's educational needs, they declined to accept certain handicapped children into their programs. Generally, those with "more severe or disruptive" kinds of handicaps were not accepted into regular preschool programs, but definitions of what constitutes a "severely handicapped child" vary widely.

On the other hand, there seems to be general agreement among advocates of mainstreaming that while each situation should be evaluated individually, the more severe the handicapping condition(s), the more special are the services required, and the less likely that integration will be "successful." Unfortunately, the research does not provide clear guidance to educators and diagnostic personnel responsible for making placement decisions and recommendations. Similarly, descriptive materials from program operators who had experience in only a single mainstreamed setting had
little value, since the judgments were usually based on particular children entering a unique classroom situation. Two recent publications, one commissioned by the Bureau of Education for the Handicapped, and the other by the Office of Child Development (see #6 and #56), attempt to assist program operators in making better screening decisions.

The major issues pertaining to mainstreaming for older children are also relevant for children six and under. However, since the research into these issues is inclusive for older children and almost nonexistent for young children, we are able to do little more than present the major rationales that educators give for favoring mainstreaming: Some of these reasons are based on common sense and others on wishful thinking, but in no case have any of them been researched conclusively.

Reasons for Favoring Mainstreaming

Those who strongly advocate mainstreaming contend that only the severely handicapped should be excluded from efforts to foster the education of both handicapped and nonhandicapped children within the same classroom. Blatt (#31) points out that, "... unless the child has such extraordinary needs which cannot be met in the regular classroom, s(he) should live in ordinary communities and attend ordinary classes in ordinary schools."

A second reason for mainstreaming is that it can improve the delivery of educational services to nonhandicapped children. Most children have a need for special attention and services at some point in their lives. If schools are designed for mainstreaming, there will be a greater opportunity for more individualized
programs and diagnostic teaching for all students; hence, it will be easier for schools to be more attentive to the special needs of all children.

A third reason many educators cite is that major benefits of an integrated program can be derived from the interactions and friendships that develop between handicapped and nonhandicapped children. In this kind of situation, handicapped children have opportunities to model socially desirable behaviors of other children, learn how to relate to others, and are better able to develop a realistic self-concept.

Further, the teacher working only with "special" children may lose perspective on what is and is not appropriate behavior and skill achievement for a given age. Mainstreaming tends to keep teachers in touch with what normal two-to-five-year-old children are doing. A related issue is that larger class size in a regular preschool class promotes independence, whereas the teacher in a smaller, self-contained situation is more likely to be overly concerned with the day-to-day progress that each child is making.

Many educators contend that mainstreaming also offers many benefits to nonhandicapped children. It provides children with the opportunity to learn and to play with children who are different and, hopefully, will prevent the development of stereotypes about people with various handicapping conditions.

The development of self-concept and social adjustment

A key argument in support of preschool mainstreaming involves two related concepts: modeling and peer reinforcement. The modeling concept holds that observation and imitation of peers who have greater competence, whether social, academic or physical, can help to increase a handicapped child's own competence and, there-
fore, his self-esteem. The peer reinforcement concept suggests that nonhandicapped children, in addition to serving as models for the handicapped, can help to increase the quality of social interactions of children having difficulties.

A common argument against integration of handicapped with nonhandicapped children is that the handicapped children might be teased, harassed or ignored by their classmates, or that the handicapped children would compare themselves unfavorably with their non-handicapped peers.

The Syracuse University (#31) interim report on the assessment of the Head Start mainstreaming effort points out that no incidents were observed or reported by teachers in which special-need children were harassed or made fun of by other children.

Caldwell (#16), in her work at Kramer School, Little Rock, Arkansas, found that:

Little children are not so prone to isolate and segregate on the basis of any characteristic, whether it's the developmental level that a child has reached, his skin color, behavior patterns, or whatever. They have much more of the ability to accept one another than do older children and adults.

Others have made similar observations. Weininger (#67) notes that preschool children tend to be more accepting of their peers' difficulties in learning. He hypothesizes that these children empathize more easily because they are still so close to their own early experiences with learning new academic skills.

On the other hand, several of the teachers and educators we interviewed pointed out that small chil-
Children are not bias-free, whether inherently or because of cues picked up from their environment, and they must be taught to accept the deviant behaviors and/or appearances of others. One example of this was demonstrated at the Forest Grove School Program for the Hearing Impaired in Montgomery County, Maryland. The hearing children were afraid of the equipment worn by the hearing-impaired children in their integrated class. Their fears were gradually relieved by the teacher's careful demonstration of how the microphones and earphones worked, and of the fact that these aids would not "hurt them."

Rejection by peers seems related to negative behaviors of handicapped children themselves, particularly aggressive ones (Macmillan, et al #47; Baldwin & Baldwin #5).

In her review of the research on peer acceptance in nursery schools, Moore (# 51) found that a large majority of children in a group will have ongoing friendships with at least one or two others in the group. Her concern was about two kinds of children--those who avoid social interaction and peer relationships (rejecting or ignoring friendly overtures), and those who want to establish friendships but go about it in ways that distress their peers. These children need help before their negative social behaviors become entrenched patterns.

Financial considerations

One reason often given for placing young handicapped children into the mainstream is its potential as a cost-saving device. We attempted to locate data which would either prove or disprove this hypothesis. Unfortunately, little in the way of hard data on costs and cost-effectiveness exists. This lack of reliable
data has added to the confusion about what is a cost-effective administrative plan. There are those who claim that a good integrated program is more cost-effective than is a segregated one, and naturally there are those who believe that the opposite is true.

Unfortunately, at this point, the only conclusion we can make is that the cost-effectiveness of mainstreaming has not yet been adequately tested.

The only available information that directly relates to the cost-effectiveness of mainstreaming at the preschool level is the Syracuse University (#31) report on mainstreaming within Head Start. This report concludes that they are unable to offer anything but the most tenuous data on the cost-effectiveness of placing handicapped children into the mainstream of Head Start programs. At the time of the report, Head Start budgets indicated little direct evidence of special costs for the handicapped. However, though they are somewhat hidden, these costs do exist. They include:

- realignment of personnel assignments;
- additional amount of volunteer time needed for the handicapped children;
- hiring new staff as a result of normal turnover, but new staff selected because they are better trained (therefore more expensive) to work with handicapped children;
- much of the inservice training sessions focus on issues related to working with handicapped children.

The extent to which costs increase when handicapped children are integrated into existing Head....
Start programs is not clarified because the number of children who would need services is not great and enrollment has not changed much. Also, the majority of identifiable handicapped enrolled are only "mildly involved."

The Syracuse Report states that, at the time of their examination of the issue, "extra costs for servicing the handicapped are minimal." However, this in no way constitutes an answer to the question of what costs would be if "appropriate services" were made available to "significantly handicapped children" (#31).

The staffs of Head Start programs were able to identify areas which need more funds:

- staffing -- more staff members are needed because the handicapped children require an extraordinary amount of staff time;
- training -- preservice training specifically directed to educating handicapped children within the mainstream;
- instructional materials, equipment, supportive services.

The lack of any reliable data on costs has added to the general confusion about mainstreaming. Some educators are concerned that administrators have rushed into mainstreaming because of its potential as a cost-saving method, i.e., one way of meeting the legislative mandate to provide education for young handicapped children. Many educators contend that any well-designed program within the mainstream should be at least as costly as the self-contained classroom (Karnes, #38; Beeler, #8; McCarthy, #50).
Beeler states, "Mainstreaming would require more money, more teachers and more commitment than most of our communities have yet allocated for education."

Reservations about Mainstreaming

Negative reactions and feelings about mainstreaming largely revolve around the concern that the handicapped child will not develop a healthy self-concept about himself because he will always see himself as different. The other major concern is that either the handicapped child takes up too much staff time or that his special needs are ignored and he becomes lost in the general hubbub of the busy preschool classroom.

A frequently expressed concern about mainstreaming is that handicapped children who are not accepted by peers or who have difficulty keeping up with the other children might develop negative attitudes about themselves and could either withdraw or develop destructive social interaction patterns. While this situation is possible with any child, the likelihood of such difficulties arising is much greater for a handicapped youngster.

A related concern is that if the mainstreaming experience is a difficult one, the consequences might be worse for all concerned than if no mainstreaming had taken place. Such a situation might create negative, deeply-entrenched attitudes and stereotypes on the part of both handicapped and nonhandicapped children.

Preparation for Elementary School

The issues involved in helping the handicapped child move from a mainstreamed preschool to an elementary school setting are the object of much concern and frustration among those preschool educators we inter-
An exhaustive search of the literature for material pertaining to helping the handicapped child adjust to elementary school under any circumstances was fruitless. A number of research studies involved children from kindergarten through grades one, two or three and one of these studies (Spollen & Ballif, #60) involved just kindergarten children. However, none of them focused on (or even mentioned) the process of shifting the handicapped children from home, from a self-contained or an integrated preschool setting to elementary school. This is apparently an important component of mainstreaming which has received little or no attention from researchers and educators.

It was in this area that our structured interviews and meetings with preschool educators served as vital and productive sources of information. Almost all of the practitioners who shared their experiences with us provided valuable anecdotal material on and insights into the process of transition. The material in this section is based largely on these verbal communications.

First, many practitioners mentioned that former students, who had been successfully integrated into preschool programs, were unable to move into an integrated elementary school setting, either because none was available or because the regulations governing public school placement in their jurisdiction permitted no deviation from existing rigid "eligibility" standards.

Further, it appears that some preschool programs (particularly Head Start programs) have continued to provide services to children who have gone on to
elementary school because the kindergarten, first and, in a few cases, second grade teachers felt that the preschool could offer these children more flexible and individual attention. This practice would indicate that at least some handicapped children were being mainstreamed into situations with inadequate supportive staff and services to meet their special needs. Iano (#30) cautions that, "... before we mainstream mentally retarded children we should pressure for changes in the grade system in general education and should encourage a greater degree of interaction and cooperation between special and general education programs than there has been in the past." While Iano refers only to retarded children, it is likely that the educators have expressed concern that mainstreaming efforts have moved ahead too quickly and without proper regard to their potentially negative effects.

Unfortunately, many school systems continue to operate in a way that requires the individual child's learning style to match the demands and requirements of a relatively standardized learning environment and curriculum. The child whose abilities and behaviors do not match the prescribed curriculum may have a difficult time in most schools.

Kirk's (#39) discussion of recent results from studies of Head Start seems related to transitional problems:

There is an initial increase in test scores, but when the program stops, or the environment changes, the scores drop. In many preschool programs, the scores are high until the age of five; then the children are placed in kindergarten and the scores drop. Often the kids move from a situation of one teacher to five children
to a kindergarten of 30 or 40 kids. Predictably, many of them feel completely lost and the gains seem to disappear.

A hopeful note is that preliminary findings from the Syracuse University investigation into the mainstreaming effort in Head Start (#31) suggest that some Head Start program operators are now making special efforts to provide adequate continuity between their programs and public school programs.
WHERE DO WE GO FROM HERE?

There are many unanswered questions about mainstreaming handicapped children at the preschool level, most of which are decision-oriented. These questions that are intended to help make decision about "what techniques will work to teach what content to whom" (Blackman, 1972) should come from teachers, for it is the teacher who is directly involved in the process of helping a child learn a needed skill.

Data which is collected by individual programs with well designed, goal-related, individual child-oriented internal evaluation systems will serve the immediate needs of the programs for feedback on its effectiveness. If efforts are also made to share findings obtained informally and formally, every mainstreamed program will benefit.

We suggest only a few of the many questions for which operating programs could help such answers.

- What type of curriculum obtains the greatest gains with which kinds of children? In which areas of early development?

- Which children with which kinds of special needs respond best to which kinds of mainstreaming programs?

- Which kinds of teachers can best deal with which kinds of mainstreaming?

67

75
How do parents influence the success of mainstreaming, and is their influence different in different kinds of mainstreaming approaches?

Which kinds of "non-handicapped" children do least well in which kind of mainstreaming situations?

Which are the characteristics of children that attract and repel other children?

How does the self-concept of children with various special needs evolve? When do children become aware of their differences and/or deficiencies? Their attributes? Do the answers vary greatly from child to child or condition to condition?

Does popularity (i.e. number of friends) mean anything to three, four or five-year-olds? Or, is having one or two friends, or even no friends, congruent with a positive self-concepts?

What is the long-range effect of preschool integration on the attitudes of nonhandicapped children toward handicapped children?

When a child is truly unique in the integrated classroom (i.e., either the only handicapped child, or the only child with a particular handicap), does he feel a sense of isolation and a loss of self-esteem?
Under what circumstances? What can teachers and peers do to alleviate the child's feelings?

[And from suggestions by Eileen Allen from the 1974 Region IX Workshop on Integrating Handicapped Children into Project Head Start]:

- Is it necessary to increase markedly the number of staff in an integrated program?

- How many handicapped children can be integrated into a regular program?

- Must a program have special materials and equipment for the handicapped child?

- Can volunteers be used successfully to improve the adult-child ratio?

- Will the "normal" children be upset by the presence of handicapped children?

- Will the normal children pick up inappropriate behavior or undesirable mannerisms?

- Do handicapped children feel too much pressure when confronted constantly by children so much more able than they?
REFERENCES


67. WeThinger, O. Integrate or isolate a perspective on the whole child. Education, 1973, 94(2), 139-147.


APPENDIX A: SOURCEBOOK

This section includes selected bibliographic materials from about 300 articles, book and documents that the authors have abstracted and published separately. The section also includes a list of books that assist young children in understanding and accepting difference in themselves and others; a list of organizations, bibliographies and other sources of information that are helpful to educators and parents of handicapped children.
SELECTED BIBLIOGRAPHY


A description of a program of in-service workshops to help teachers shape a new outlook on learning and experimentation.


This is an excellent overview of mental retardation, offering an explanation of tests used with young children and the educational implications of retardation.


Bailey, C. B., Klein, T. L. and Sanford, A. R. A model for resource services to the young handicapped child in a public school setting. 1974.

Filling the need which was created from the movement to integrate young special need children into regular public school settings, the Chapel Hill Training-Outreach Project designed a model for "development, implementation and evaluation of a comprehensive approach to mainstreaming the young child . . ."

The program is directly concerned with helping the special need child, his/her family and the regular classroom teacher. The components of this program are clearly specified so that other programs can replicate and expand the model.

AVAILABILITY: Chapel Hill Training-Outreach Project/Lincoln School/Merritt Mill Road/Chapel Hill, North Carolina 27514 ($1.50)

This pamphlet deals with screening and assessment of the child with special needs, the integration of children with special needs into the normal preschool class, and the participation of parents in the integration process.


A detailed description of methods for teaching retarded children self-care habits and simple skills. It includes discussions of developmental principles, family reactions, methods of assessment and observation.


This paper focuses on the belief that openness of both teachers and their classrooms, and advocacy for the educational rights of handicapped children contribute to the process of mainstreaming. The teacher's role in education and advocacy as well as innovative ways to prepare teachers of handicapped children are discussed.

**AVAILABILITY:** Far West Laboratory for Educational Research and Development/1855 Folsom Street/ San Francisco, California 94103 ($6.95).


Introduces a model for curriculum organization for the classroom, clinic and the home to enrich and improve the development of children with particular emphasis upon the child with special problems in learning. Practical suggestions based upon principles of learning are offered to help the child achieve the highest possible level of perceptual-motor integration. (Abstract by publisher)

Presents techniques to be employed by teachers, clinicians and parents toward the resolution of special learning problems in children at the preschool elementary and secondary school levels. Classroom sequences of perceptual activities are presented progressing from simple to complex activities. Clinical sequences aimed at amelioration of specific forms of perceptual and movement disorders are discussed. (Abstract by publisher)

Becker, W. C. Parents are teachers, a child management program. 1971.

Designed to help parents learn to be more effective teachers of their children. Program shows parents how to systematically use the natural consequences of the environment to teach children in positive ways.


This article deals with the integration of emotionally disturbed children into a classroom composed primarily of normal children. Practical suggestions for the successful integration of handicapped and nonhandicapped children are offered.

This is a book written for teachers to inform them about various organizational means for mainstreaming.

AVAILABILITY: Dimensions Publishing Co./Box 4221/San Raphael, California 94903


A simple introduction to behavior modification for people interested in child behavior and development.


A book of general background about deaf children written for parents and lay persons.


Narrative description of a training program for teachers. The book includes chapters on working with children with emotional problems, family home visiting, and individual tutoring.

AVAILABILITY: Preschool Unit/9 Sacramento Street/Cambridge, Massachusetts 02138 (no charge).


Aids parents and other concerned non-professionals to understand the learning-disabled children; how to live with and help learning-disabled children and how to assist them in preparing for successful adult lives.

AVAILABILITY: Harcourt Brace Jovanovich Inc./757 Third Avenue/New York, New York 10017 ($7.50)
Caldwell, B. Home teaching activities.

An easy to understand booklet that contains enrichment activities that parents can use in the home with their small children.

AVAILABILITY: Center for Early Development and Education/University of Arkansas/814 Sherman/Little Rock, Arkansas 72202 ($3.00)


The purpose of the pamphlet is to provide general information on the characteristics of various handicapping conditions. This information will assist regular classroom teachers with early identification, referrals and educational programming for handicapped children.

AVAILABILITY: Instructional Materials Center/1020 South Spring Street/Springfield, Illinois 62706.


A manual designed to help teachers and administrators work with parents and siblings of children with special needs. It emphasizes family process, resources and individual differences.

AVAILABILITY: Chapel Hill Training-Outreach Project/Lincoln School/Merritt Mill Road/Chapel Hill, North Carolina 27514.


This document is a summary of interactions that took place at a three-day conference bringing researchers and special educators together. Stated goals of the conference were to make the participants more knowledgeable about: 1. recent research findings; 2. the process of translating
research findings into educational implications; and 3. the implications of recent research for the education of young handicapped children.

AVAILABILITY: New York State Network of Special Education Instructional Materials Centers/Albany, New York.


A handbook for educators responsible for planning, implementing and evaluating programs for the training of early childhood personnel.

AVAILABILITY: Springer Publishing Co./200 Park Avenue/New York, New York 10003.


A practical handbook for parents of deaf-blind children that focuses on helping the child develop and prepare for school.


This book, which has a strong orientation towards the practitioner, consists of detailed descriptions of early childhood education programs that are currently in operation in school systems throughout the United States.

AVAILABILITY: Lear Sigler, Inc. - Fearon Publishers/6 Davis Drive/Belmont, California 94002

A handbook for parents and teachers about handling physically handicapped children in basic self-care activities. It includes detailed illustrations of physical development and helpful therapeutic exercises.

Fraiberg, S. H. The magic years - understanding and handling the problems of early childhood., 1959.

A practical book for both parents and professionals concerned with early childhood. The book focuses on personality development during the first five years of life. As well as providing a description of typical problems that are associated with each developmental stage, it provides insight into the mental life of the pre-school child and basic principles of child-rearing based on facts of development.

AVAILABILITY: Charles Scribner's Sons/New York, New York (no. SL 161, $2.95).


As the mother of a child with a special handicap and as the director of a school for the retarded for thirty-five years, Mrs. Fraser believes that every child has a potential for development. Her wealth of experience distilled in this book is designed to help parents and teachers in their work with these special problems. She describes the attitudes, methods, and procedures she has found most successful in building the good self-concept needed for the acceptance and achievement essential for a happy, adjusted person. (Abstract by publisher)

AVAILABILITY: Special Child Publications/4535 Union Bay Place N.E./Seattle, Washington 98105 (no. 037-X, $4.50).


"A handbook for parents and teachers of children with learning disorders." A description of one child with a learning disability which incorporates a lot of general information about the field.

This book consists of eighteen articles, each describing an area of current research in early childhood. Articles were selected on their scientific relevance and their potential for being useful to teachers. Areas represented include:

- social learning processes
- language and cognition
- acquisition of values and social norms
- social interactions between children

\textbf{AVAILABILITY:} National Association for the Education of Young Children/1834 Connecticut Avenue, N.W./Washington, D.C. 20009.


An extremely useful book. Divided into four parts: I. Background dimensions: historical origins and contemporary practices. II. Dimensions of difference: determiners, flexibility and sociality, intelligence and individualization. III. Learning dimensions: levels of competence, attention and response order levels, exploratory and social levels, mastery level. IV. Future dimensions: current issues in special education, and the Santa Monica Madison School Plan.

\textbf{AVAILABILITY:} Allyn and Bacon, Inc./470 Atlantic Avenue/Boston, Massachusetts.


A readable classic in special education; a description of efforts to teach and socialize a "wolf child"; ideas for innovative teaching.

This book, a product of a CEC conference, is directed toward administrators' programs. The book is divided into 14 chapters, each based on the presentation of the participants in the conference, and organized into five headings:
1. rationale and historical perspective for early intervention; 2. identification of children needing special help; 3. program models and resource materials; 4. training of personnel; and 5. initiating and implementing change.

AVAILABILITY: The Council for Exceptional Children/1920 Association Drive/Reston, Virginia 22091 (no. 59, $7.75).


Manual of common activities organized to conform to the subtests of the ITPA (Illinois Test of Psycholinguistic Abilities). Very useful as a curriculum resource.

AVAILABILITY: The Council for Exceptional Children/1920 Association Drive/Reston, Virginia 22091 (no. 11, $3.75).


A detailed account by a mother of her work with her own aphasic daughter. Readable, full of ideas, and a good testimonial to the importance of involving parents as co-teachers.


Emanating from a small group process experience, this book represents the results of teachers exploring "their feelings, concerns, and interaction with children and with other school staff members." The theme of teacher loneliness, communication between staff members, the quality of individual teacher-child relationships and a description of the group process are discussed.

A hardcover book written for parents about all aspects of the care and education of blind children.


Discusses the requirements for integrating hearing impaired children into a regular preschool program, including specific suggestions for teachers.

AVAILABILITY: BAEYC Reports/2133 Commonwealth Avenue/Auburndale, Massachusetts 02166.

Marshall-Poweshiek Joint County Department of Special Education. **Home stimulation of handicapped children.**

A very complete guide for parents to use at home with their child. This is a "how to" manual that contains many excellent suggestions for ways to stimulate preschool children. Useful for both handicapped and nonhandicapped youngsters.

AVAILABILITY: Marshall-Poweshiek Joint County Department of Special Education/9 Westwood Drive/Marshalltown, Iowa 50158 ($3.50).

Moor, P. H. **A blind child, too, can go to nursery school.**, 1962

Very brief pamphlet about important considerations when a blind child is placed in a regular class.


The author views successful integration of the preschool child as dependent on early diagnosis, infant education and home training, extra tutoring and individualized, diagnostic-prescriptive teaching. She also discusses the role of the parent and describes the UNISTAPS program.

AVAILABILITY: The Council for Exceptional Children/1920 Association Drive/Reston, Virginia 22091 (single copy - $2.00)


A mother's description of a family's struggle to raise and get help for their severely autistic learning disabled daughter, that also contains some practical suggestions for parents.


This collection of articles, written by various kinds of educators and introduced by the editor, is intended for all people interested in preschool program development. The 13 chapters of the book are divided into five basic categories: 1). identification and evaluation of preschool children with learning problems; 2). stages of childhood development; 3). preschool materials and how to obtain and use them; 4). the needs of children with specific disabilities; and 5). program description and acceptance by parents.


This manual is the first step in an effort to develop a needs assessment kit to provide Head
Start staff, parents and others with simple easy-to-use techniques to identify the child's unique needs and capabilities and to respond in ways that enhance the child's development. It is concerned with physical problems, cognitive development, emotional problems, medical information about childhood handicaps and health impairments. A concluding section is on community resources and talking with parents.

AVAILABILITY: DHEW/Office of Child Development/ Washington, D.C.

Sanford, A. R. Learning accomplishment profile.

LAP is designed to provide the teacher of young handicapped children with an easy to use record of the child's development. It enables the teacher to:

- identify developmentally appropriate learning objectives for each individual child
- measure progress through changes in rate of development
- provides specific information relevant to pupil learning.

AVAILABILITY: Chapel Hill Training-Outreach Project/Lincoln School/Merritt Mill Road/Chapel Hill, North Carolina 27514.

Siegel, E. Special education in the regular classroom., 1969.

Designed for regular classroom teachers, the book concerns the minimally handicapped child. Concepts discussed are an introduction to special education and the problems of the mildly handicapped child who is mentally retarded, brain injured or emotionally disturbed, and techniques to aid the teacher with student problems of self-concept, anxiety, attention, organizing, copying written material, coordination, abstract thinking, behavioral problems, and social immaturity. Also included are some additional aspects of the teacher's role, such as assisting in identification, gathering information, using supportive services, participating in training programs, lesson planning, and consulting with parents.

Provides simple instruction on the use of behavior modification techniques for child management.


This collection of papers provides a good general overview of evaluation studies on preschools for disadvantaged children, comparing different curriculum modes, process variables and product variables. Contributors include: Carl Bereiter, David Weikart, Oralie McAfee, Todd Risley, Marion Blank, followed by discussions by Harry Beilin, Lowman G. Daniels and Courtney Cazden.


A practical article, offering teachers some basic principles so the blind child can be readily accommodated in a regular kindergarten classroom.

This resource book consists of twenty-five descriptions of various handicaps, diseases and behavioral dysfunctions. It also offers information on national, state and community services, organizations and recreational programs as well as information on insurance.

Wender, P. H. The hyperactive child - a handbook for parents., 1973

Written for parents this book presents a complete picture of the hyperactive child. Basic characteristics of hyperactive children and the problems they can create are described. Causes of hyperactivity are discussed. The author probes all the methods of treating hyperactive children. He discusses the effective use of medication and best methods of parental management.

CHILDREN'S BOOKS


An easy to read book that graphically presents photographs of the parts of the body. Very engaging and the photographs are beautifully done.


This is a book for very young children who share in the responsibility of helping a retarded sister or brother. It explains what retardation is and what it means in the life of a family. The author has been a special class teacher of trainable and educable retarded children. The book is illustrated by Kenneth Boudreau, mentally retarded, legally blind, and age 15 at the time he drew his interpretations of the story.

AVAILABILITY: National Association for Retarded Children/2709 Avenue E. East/ Arlington, Texas 76011 ($3.95).


Because she is somewhat retarded, grown-ups call Laurie a "slow child." But Laurie learns that she is only slow in doing some things. (Abstract by Behavioral Publications).

AVAILABILITY: Behavioral Publications/72 Fifth Avenue/new York, New York 10011 (no. 008-2 $5.95).


Johnny is a boy with a problem. Many people try to help him by offering all kinds of ideas and suggestions, but it's not until his friend, Peter, takes the time to really listen that Johnny begins to feel better. (Abstract by Behavioral Publications).

AVAILABILITY: Behavioral Publications/72 Fifth Avenue/New York, New York 10011 (no. 054-6 $5.95).
Gold, Phyllis. Please don't say hello., 1975.

Written by a mother of an autistic child, this book tells the young reader about little Eddie, whose inherent talents, friendliness, and desire to communicate are trapped within his autistic shell.

AVAILABILITY: Behavioral Publications/72 Fifth Avenue/New York, New York 10011 (no. 2-115 $6.95).


About a young lion who seems to be "a late bloomer" and somewhat of a disappointment to his father. His mother urges that the father be patient and gradually, Leo catches up. The pictures are marvelous. The faces portray the emotional reactions of the parents and Leo and children identify easily with Leo. The book ends on a very hopeful, touching note.


Written from the view of a child who has a brother who learns in a manner that is different from most children's learning styles.


This book represents a new approach to teaching non-deaf children about their deaf peers, while at the same time teaching deaf children how they can successfully participate in the social environment. (Abstract by Behavioral Publications).

AVAILABILITY: Behavioral Publications/72 Fifth Avenue/New York, New York 10011 (no. 104-6 $5.95).

Raskin, E. Spectacles., 1969

Ideal for preparing children for an eye examination and for young children who must wear glasses.

Wolf, B. *Don't feel sorry for Paul.* Lippincott, 1974.

AVAILABILITY: ($6.95).
SOURCES OF INFORMATION

The following materials are available from the:

Information Center on Exceptional Children
The Council for Exceptional Children
1920 Association Drive
Reston, Virginia 22091


This annotated directory of national associations, organizations, and agencies whose services relate to exceptional children, both handicapped and gifted, contains 89 entries, listed alphabetically. Following the name, address, and phone number (where available) of each organization, a descriptive paragraph summarizes its purpose, membership requirements, publications, sponsorship of conferences, and affiliations with local chapters. The guide is intended as a useful resource for educators and parents seeking needed information and service. (Abstract by Council for Exceptional Children)


A useful resource for educators, administrators, and parents seeking information or services in the area of early childhood education; the directory of resources lists laboratories, centers, organizations, and major publications focusing upon early childhood education. Major categories of resources listed include programs on reading and language development for the disadvantaged (preschool and special education), the ERIC Clearinghouse on Early Childhood Education, the National Center for Educational Research and Development (NCERD) activities related to early childhood education, the Bureau of Education for the Handicapped activities in early childhood education (early childhood centers, Deaf-Blind Centers), agencies and organizations interested in early education of children, and major publications concerned with education of young children. (Abstract by Council for Exceptional Children)

An excellent guide to existing resources for preschool handicapped children. It is divided into three sections: Selected Federal Agencies, Associations and Directories; Program Descriptions of Regional, state and local resources and State resource entries. Included is a complete state by state listing of the SEIMC/RMC Regional Instructional Materials Centers, Associate Instructional Materials Center and Regional Media Centers for the deaf. The SEIMC/RMC network provides direct services and technical assistance to teachers.


Abstracts and ordering information on films dealing with children who are handicapped or having other special needs. The films are available from the Instructional Materials Centers (IMC's) and Regional Media Centers (RMC's) listed in the document.

Exceptional Child Bibliography Series.

Also, available through the Council for Exceptional Children are bibliographies on various subjects related to children with special needs. Topics related to mainstreaming young children include: "identification and intervention of handicaps in early childhood" and "regular class placement/special classes."

The following bibliographies are available from:

ERIC Clearinghouse on Early Childhood Education
University of Illinois at Urbana - Champagne
805 W. Pennsylvania Avenue
Urbana, Illinois 61801

De los Santos Mycue, E. (comp.) Young children with handicaps, Part I; Emotional disturbance and specific learning disabilities. An abstract bibliography., 1973,


The following directory is available from:

R. R. Bowker Company
1180 Avenue of the Americas
New York, New York 10036


The entries in the directory of preschool educational centers in the U.S. are arranged alphabetically by state, and by city within each state. Each state section begins with a summary of the state credentialing laws for teachers in early childhood education, and gives the Office of Child Development's (OCD) region number and regional director's name and address. (OCD is the Federal agency responsible for Head Start and coordinates much Federal funding for children's programs.) For each early education center listed, the following information is given: history, educational philosophy, licensee, calendar, admission, staff, curriculum, fees, enrollment, finances, and facilities. The index lists centers by type of service or program offered to help in locating a particular kind of service. Among these are academically affiliated schools, day care centers (including kindergarten and laboratory schools), Montessori philosophy schools, nursery schools, residential schools, and therapeutic programs. (Abstract by Council for Exceptional Children)
Many publications and other sources of information are available from the following two organizations:

Association for Childhood Education International
3615 Wisconsin Ave. N.W.
Washington, D.C. 20016

National Association for the Education of Young Children
1834 Connecticut Ave. N.W.
Washington, D.C. 20009
APPENDIX B: LISTS OF CONTRIBUTORS

Programs

Yvonne Ali and the staff of the EPSDT Therapeutic program of the National Capital Area Child Day Care Association, Washington, D.C.


Joyce Chance and Marilyn Semmes of the Preschool Program for Handicapped Children in Fairfax County, Virginia.

Susan Elwell and the staff of the Chevy Chase Baptist Church Community Child Care Center, Washington, D.C.

Marion "Jackie" Green and the staff of the Federal City College Demonstration Nursery Early Child Learning Center in Washington, D.C.

Dr. Michael Guralnick and the staff of the National Children's Center, Washington, D.C.

Constance Maier of the Good Start Program in Washington, D.C.

Edna Monsees, Director of the Montgomery County, Maryland, Public School Program for the Hearing-Impaired, and her staff.

Helen Rubin and the staff of the Montgomery County Association for Retarded Children (MARC) Preschool, Maryland.

Anne Sanford and the staff of the Chapel Hill Training-Outreach Program, Chapel Hill, North Carolina.

Janet Weaver and the staff of the National Child Research Center, Washington, D.C.

David Williams and the staff of the Preschool Program of the School for Contemporary Education, Alexandria, Virginia.

James Wise and the staff of the Bowie Therapeutic Nursery in Bowie, Maryland.
Telephone Interviews

Kay Amershek of the University of Maryland Early Childhood Education Department.

Minnie Perrin Berson, Illinois State University in Normal.

Howard P. Blackman, New Jersey ACLD, Covent Station, New Jersey.

Gail Enshur from Syracuse University.

Adele Foscia of the Washington, D.C. Easter Seal Society.

Merle Karnes, University of Illinois, Champaign.

Jean Pugmire, Utah State University.

Joe Renard and Ellen Grief and other practitioners in the D.C. Public Schools.

David Sabatino, Northern Illinois University, DeKalb.

Correspondence through the mail

Ann S. Bardwell of the Nelsonville Children's Center, Nelsonville, Ohio.

Helen D. Bierne, Project Director, Alaska Head Start Special Services Project, Anchorage, Alaska.


Esther C. Fink, Director, Head Start Opportunities for Otsego, Inc., Cooperstown, New York.

H.D. Fredericks, Research Professor, Teaching Research Infant and Child Center, Monmouth, Oregon.

Bea Gold, Project Coordinator, Los Angeles City Unified School District.

Molly C. Gorelick, Preschool Project Director, California State University, Northridge, California.
Gail McGinness, Experimental Education Unit, Seattle, Washington.

Joan Miller, Associate, Information Retrieval and Dissemination, State Education Department, Division for Handicapped Children, Albany, New York.

Harold W. Perry, Director, Division of Special Education, Memphis City Schools, Memphis, Tennessee.

Mary Rifice, Glassboro State College, Glassboro, New Jersey.

Neal Shortinghouse.