

# FOCUS ON EXCEPTIONAL CHILDREN

---

## WILL THE REAL "MAINSTREAMING" PROGRAM PLEASE STAND UP! (or . . . SHOULD DUNN HAVE DONE IT?)

*Jerry D. Chaffin, Ed.D.<sup>1</sup>*

### MAINSTREAMING EXCEPTIONAL CHILDREN

Since the turn of the century when the first special classes were established in the United States, segregated special classroom environments have been the most popular means for educating mildly and moderately retarded children. However, during the past decade, increasing discontent with segregated classes has emerged among special educators, and a variety of alternative delivery systems have been proposed and implemented. These alternative educational programs are characterized by the retention of the mildly retarded child in the regular education classroom with supplemental instructional support being provided to the regular classroom teacher—this practice is popularly referred to as "mainstreaming."

The present emphasis on mainstreaming programs for mildly and moderately retarded children was brought about in part by:

1. The equivocal results of research dealing with the effectiveness of special classes for the mildly retarded.
2. The recognition that many of the diagnostic instruments used for identifying retarded children were culturally biased, which often resulted in inappropriate diagnosis and placement of children into special classes for the retarded.
3. The realization on the part of special educators that the effects of "labeling" a child may be more debilitating than the diagnosed handicap.
4. Court litigation in special education related to placement practices and the rights of children to appropriate educational treatment.

The above factors (and others) which have led to the current practice of "mainstreaming" exceptional children have been amply reviewed and expanded upon in other sources (Tilley, 1970; Kolstoe, 1972; Iano, 1972; Dunn, 1968; Dunn, 1973; Garrison & Hammill, 1971) and will not be reviewed here. Instead, the purpose of this paper is (1) to provide the reader with a brief historical overview of the debate in the literature among special educators regarding the appropriateness of special class

1. Dr. Chaffin is Associate Professor of Special Education, University of Kansas, Lawrence.

placement for the retarded; (2) to highlight briefly several theoretical proposals describing alternative delivery systems; (3) to present a variety of "mainstreaming" models currently being implemented in the public schools; and (4) to establish guidelines for special education administrators who may initiate mainstreaming programs in the future.

### "TO SEGREGATE OR NOT TO SEGREGATE"

Professional dialogue related to the validity of segregated special classes, as a viable means of intervention for the problems of exceptional children, has been carried on among special educators for more than 30 years. Efficacy research on special class placement prior to 1940 (Bennett, 1932; Pertsch, 1936) must have prompted some special educators to question seriously the appropriateness of special class placement, and the Twenty Second Annual Meeting of the International Council for Exceptional Children (in 1944) featured a panel of administrators and professors who presented their views on *Segregation versus Non-Segregation of Exceptional Children*. A summary of the panelists' comments is reported by Shattuck (1946). The views of several of the panelists would be quite current today, for they emphasized a need for training regular classroom teachers to work with handicapped children and also expressed concern that special education provisions be based on the needs of the child and not designed for administrative expediency.

For example, Bess Johnson, then principal of Smouse Opportunity School in Des Moines, Iowa, argued

"...dumping a handicapped child into a pool of normal children where he must sink or swim should not be permitted until all teachers have been trained to be lifesavers" (Shattuck, 1946, p. 236). On this same panel, Harley Wooden, then Superintendent of the Michigan School for the Deaf, reminded the audience that the environment selected for a child's development "...must...be based on a thorough understanding of the particular child involved rather than on an administrative expediency of segregation or a blind ideal of nonsegregation" (Shattuck, 1946, p. 236). Wooden indicated that the real concern, when placing an exceptional child, is with creating an environment in which he can satisfactorily grow and develop. He stressed that

neither the ordinary unmodified normal environment nor the unmodified segregated environment is suitable for growth and development of a markedly exceptional child. The normal environment must be appreciably modified to provide for his deviation from the normal group and for his acceptance into it, while the segregated environment, which is designed to meet his exceptional condition, must be appreciably modified to meet his social needs. [p. 239]

The views expressed by this panel in 1944 appear not so much against segregation as for integration where possible—a philosophy not inconsistent with views of many special educators today.

Nearly two decades later, Johnson (1962) reviewed some 14 research studies dealing with various aspects of the efficacy question. Finding no strong supportive evidence in favor of special class placement, he noted:

It is indeed paradoxical that mentally handicapped children having teachers especially trained, having more money (per capita) spent on their education, and being enrolled in classes with fewer children and a program designed to provide for their unique needs should be accomplishing the objectives of their education at the same or at a lower level than similar mentally handicapped children who have not had these advantages and have been forced to remain in the regular grades. [p. 66]

Johnson postulated, as a possible explanation of this seemingly paradoxical situation, that the removal of exceptional children from regular classrooms had also removed much of the competition and pressure to learn which is present in most school situations. Citing several selected research studies which supported his position, Johnson then proposed that educators consider the introduction of "realistic stress" in special classes as a means of enhancing the learning outcomes of children.

In a rebuttal of Johnson's suggestion, Steigman (1964) suggested that Johnson had inaccurately interpreted the research dealing with the effects of stress on learning. Steigman then presented his own interpretation of this

FOCUS ON EXCEPTIONAL CHILDREN is published monthly except June, July, and August as a service to those concerned with mentally retarded and emotionally disturbed children. This journal is abstracted and indexed in *Exceptional Child Education Abstracts*. Subscription rates, \$9.50 per year. Copyright 1974. Love Publishing Company. All rights reserved. Reproduction in whole or part without written permission is prohibited. Printed in the United States of America. Second class postage is paid at Denver, Colorado.

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

#### EDITORIAL BOARD

Edward L. Meyen  
University of Kansas

Glenn A. Vergason  
Georgia State University

Richard J. Whelan  
University of Kansas Medical Center

Sallie Carmachel Keeney  
Managing Editor

Stanley F. Love  
Publisher

research which in actuality, he said, supports a position related to simplifying "the tasks to be learned and to reduce stress in the learning situation" (p. 68)—a position nearly opposite that of Johnson.

Though Johnson's article resulted in considerable controversial discussion among professional educators, the fact that it did not result in a major reversal of practices in special education may have been partially due to Steigman's lethal critique of his proposal.

During the next few years, the professional dialogue regarding the validity of special class placement expanded from the efficacy question to include concern about the effects of labeling children and the recognition that some of the measurement tools used for identification and placement of children into segregated environments were unfair to minority-group children. Later dialogue included the potential ramifications of court litigation on some practices in special education. Dunn (1968) reviewed the research associated with the above concerns in his now familiar essay "Special Education for the Mildly Retarded—Is Much of It Justifiable?" and called for a moratorium on the placement of mildly retarded children in special classes. The timeliness of Dunn's comments or his prominence among special educators (possibly both) influenced significantly the thinking and action of special educators. MacMillan (1971) acknowledged this influence by noting, "Clearly, Dunn has been an important influence in reversing a trend toward the proliferation of self-contained special classes. . ." (p. 1).

MacMillan went on to take issue not with Dunn's recommendations, but rather with the apparent misinterpretation of Dunn's findings by some school districts. The wholehearted endorsement by some school districts of what they perceive Dunn's position to be has resulted in many schools moving "toward total integration of EMR-labeled children into regular classrooms" (p. 12). MacMillan maintains that an abrupt and unorderly change from self-contained classrooms to total integration can be dangerous. Instead, he argues, what is needed is a systematic development of preventive, transitional, and regular classroom models whereby programs are developed cooperatively by university and public school personnel so that they evolve as a result of controlled research. He emphasized that "unless the quality of research is high, it will not provide us with the necessary information on which we must make educational decisions regarding children" (p. 10).

After carefully reviewing the evidence presented by Dunn, MacMillan added his own interpretation and concluded that "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?" (p. 9).

MacMillan's concern for the systematic development and evaluation of alternative programs for the retarded is undoubtedly shared by a majority of special educators. The extent to which that shared concern is actually reflected in practice will be noted later in this paper.

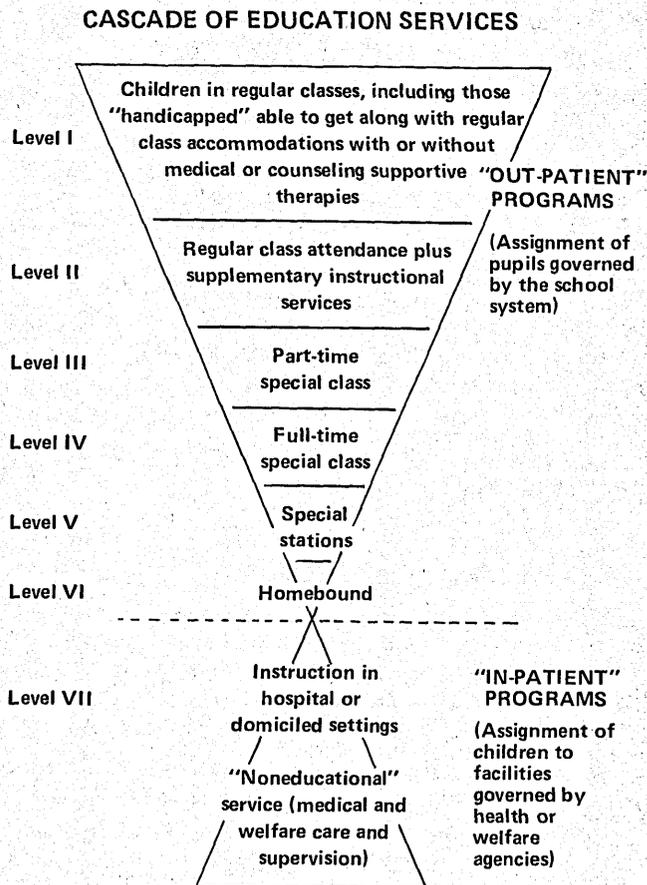
### THEORETICAL PROPOSALS FOR MAINSTREAMING

Dunn's (1968) forceful critique of special classes for the retarded resulted in a number of proposals for alternative delivery systems. Four such models are presented below. Each model, though prompted by concern for programs for the retarded, describes a system which would be applied across most areas of exceptionality—in most cases without attention to labels.

**Deno's Cascade of Services:** Evelyn Deno (1970) has proposed that special education "conceive of itself primarily as an instrument for facilitation of educational change. . ." (p. 229). Deno argues that successful industries invest a part of their resources in research and development, resulting in the improvement and development of new products. Deno perceives special education as the research-and-development arm of regular education, thus providing "Developmental Capital" to improve all education. To assume such a role, special education must be inseparably linked to regular education; Deno proposes a cascade of education services (see Figure 1) to illustrate this linkage. Deno describes this system as one which "facilitates tailoring of treatment to individual needs rather than a system for sorting out children so they will fit conditions designed according to group standards not necessarily suitable for the particular case" (p. 235). In summary, Deno's cascade of services recognizes the individuality of exceptional children by providing a wide variety of service options.

**Lily—A Training Based Model:** Steve Lilly (1970) has argued that, for too long, the focus of educational intervention has been on the child and not on the educational system. He then offers a new definition of exceptionality which emphasizes the characteristics of the school situation and not the characteristics of the child (p. 48). In a later paper, Lilly (1971) outlines the Training Based Model for providing services to exceptional children, which model he emphasizes must meet several criteria. The first criterion to be met is that the model must be a

Figure 1



The cascade system of special education service. The tapered design indicates the considerable difference in the numbers involved at the different levels and calls attention to the fact that the system serves as a diagnostic filter. The most specialized facilities are likely to be needed by the fewest children on a long term basis. This organizational model can be applied to development of special education services for all types of disability. (Deno, 1970, p. 235)  
Reprinted by permission of the publisher.

zero-reject system. Inherent in the zero-reject system is the policy that "...once a child is enrolled in a regular education program within a school, it must be impossible to administratively separate him from that program for any reason" (p. 745). Lilly notes that the zero-reject system places responsibility for failure on the teacher and not on the child, and forces educators (both special and regular) to deal with educational problems in the regular classroom.

A second criterion is that the responsibility for "...rectification of difficult classroom situations" (p. 746) lies with the regular classroom teacher, with special education providing only a supportive role. As a corollary, Lilly's third criterion is that the major goal of special

education is to develop the skills of regular classroom teachers to the point where they no longer need special education support. Lilly then goes on to describe a training-based approach.

Upon referring a child, a teacher would be offered the services of an instructional specialist whose function would be to instruct that teacher in ways to handle the referred problem, as well as other identifiable problems within the regular classroom. The task of the instructional specialist would be to equip the teacher to deal with the class as it exists, to handle both behavioral and academic problems.

While in the classroom, the instructional specialist would work with the teacher in such areas as diagnosis of problems in academic skill areas, specification of both individual and small-group study programs, behavior management procedures, and group and individual reinforcement patterns. In short, the instructional specialist would teach skills deemed necessary to enable the classroom teacher to cope effectively with the classroom situation. At no time during the period of service would the instructional specialist remove a child from the classroom for individual work, whether it be of a diagnostic or tutorial nature, *for this practice in no way contributes to preparing the teacher to perform this function in the future.* [p. 746]

Lilly emphasizes that the training based model would replace, not supplement, existing services and notes that many former special class teachers would be cast in new roles requiring that the district provide extensive inservice training. Lilly's model represents a major challenge to training institutions since the effective instructional specialists in Lilly's model, must be "experts in all areas of behavior and curriculum management, and at the same time, must develop interpersonal skills necessary to conduct successful teacher education" (p. 746).

**Gallagher's Contract Model:** The Special Education Contract model proposed by Gallagher (1972) is directed mainly toward mildly retarded, disturbed, or learning-disabled primary-age children. This model involves the adoption of a signed formal contract between parents and school officials prior to the commitment of a mildly handicapped child to special education services. This formal contract would outline specific goals to be attained during the intervention program and would cover a time period of no longer than two years. The contract would be "...nonrenewable, or renewable only under a quasi-judicial type of hearing, with the parents represented by legal or child advocate counsel" (p. 532).

Gallagher emphasizes that the Special Education Contract is not a substitute for all current special education services and notes that it (the model) is only a

...limited suggestion for dealing with two pressing problems facing special education today. The first problem is the difficulty of replacement of mildly handicapped children in

regular education once they have been assigned to special education. The second and related problem is the tendency to overassign certain minority group children to special education. [p.527]

Gallagher also stresses that his proposal is not one to be adopted blindly without much discussion and pilot work in a number of communities.

**Adamson's and Van Etten's Fail-Save Model:** The fail-save model (Adamson & Van Etten, 1972) was published as a response to Lilly's (1971) proposed training-based model. The authors suggested that Lilly's model may be too limiting in not offering enough alternatives for exceptional children. They propose a plan incorporating at one level the training aspects emphasized by Lilly but including several alternatives. In the fail-save model:

The "fail" represents the system's failure to meet all children's needs, not the child's. The "save" represents the adaptation of the system to the child's individual needs and "save" him. [p. 736]

Procedurally, the "fail-save" model begins with a referral from the regular classroom teacher. Upon receipt of the referral, a methods and materials consultant begins a 10-week evaluation and observation of the child. During this period, the consulting teacher conducts both formal and informal testing of the child, recommends trial procedures and materials to the regular classroom teacher, and makes regular observations of the child, as well as regular contacts with the teacher, in an attempt to determine the responsiveness of the child to the trial programs. "At no time does the methods and materials specialist become the tutor or the remedial teacher" (p. 737).

At the completion of the 10-week cycle a conference, attended by parents, teachers, administrators, and the methods and materials person, is held to decide on future action. At this point one of two decisions may be made. The child may either be retained in the initial treatment phase for an additional 10-week period, or he may be referred to a resource classroom/regular class placement. The resource placement extends for a period no longer than 90 days. During this period the child is assigned to regular class and attends the resource room for diagnostic instruction and tutoring as needed. The materials and methods consultant also continues to monitor the progress of the child. At the end of 90 days another evaluation conference is held, and one of three decisions is made: (1) the child is returned to the itinerant cycle for 10 weeks; (2) the child remains in the resource room/regular class program for an additional 90 days; or (3) the child is referred for special class/resource room placement. When

the child is placed in the special class/resource room, his program is coordinated jointly by the special-class and resource-room teachers. This placement is made for a maximum of 9 months. Following an evaluation of the child's response to this level of instruction, the child may be returned to the resource room/regular class program or be referred for special-class placement. If the latter decision is made, the child must automatically be returned to a resource-room program after 2 years.

According to the authors, the fail-save model is based on "...experience and data gathered from implementing educational diagnosis, itinerant methods and materials consultant/teachers, resource rooms, materials laboratories and a teacher-based training model" (p. 735). They emphasize that such an administrative model better meets the needs of the exceptional because it offers greater instructional and program alternatives which the diverse exceptional population needs.

The four models described above represent the individual authors particular approaches for improving delivery systems for handicapped children. The models are in some respects theoretical, though they have been implemented with some variation in a variety of applied settings. For example, Deno's concept of a service hierarchy is present (in some form) in nearly all applied programs; Lilly's emphasis on the inservice role of the special educator is also present in many applied models; and Gallagher's suggestions for formally contracted education plans for the individual child are also present in many programs, though admittedly most programs do not develop these plans in cooperation with parents nor with the formality urged by Gallagher. The "fail-save" model of Adamson and Van Etten has been implemented in the state of New Mexico (Pepe, 1973) with some minor changes being made in the model prior to implementation (Van Etten & Adamson, 1973).

## MAINSTREAMING PROGRAMS IN THE PUBLIC SCHOOLS

Four recent publications have described a number of mainstreaming programs currently operational in the public schools. These publications are *Models for Mainstreaming*, by Keith Beery (1972); *Instructional Alternatives for Exceptional Children*, edited by Evelyn N. Deno (no publication date); *Configurations of Change: The Integration of Mildly Handicapped Children into Regular Classrooms*, edited by Nancy Kreinberg and Stanley H. Chou (1973); and *Mainstreaming: Educable Mentally Retarded Children in Regular Classes*, by Jack Birch (1974). These

four publications contain a total of 30 different alternative systems for delivering special education services to exceptional children. A few of the models are descriptions of university training models, but most of the models represent descriptions of alternative programs that are

currently being implemented in public school settings. Table 1 contains a listing of the programs, their location, and the source from which the information was obtained.

The programs in Table 1 were reviewed initially with the idea of comparing and contrasting each of the

Table 1

## MAINSTREAMING PROGRAMS IN THE SCHOOLS

	Deno	Birch	Kreinberg & Chou	Beery		Deno	Birch	Kreinberg & Chou	Beery
1. Tacoma Board of Education (Tacoma, Washington)			X		* 18. Harrison School (Minneapolis, Minnesota)	X			
2. Richardson Public Schools (Richardson, Texas)			X		* 19. Seward University Project (Minneapolis, Minnesota)	X			
3. Plano Independent School District (Plano, Texas)			X		20. Building Administrators- Individualized Instruction (Rockford, Illinois)	X			
4. Tucson Board of Education (Tucson, Arizona)			X		21. The Houston Plan (Houston, Texas)	X			
5. Louisville Public Schools (Louisville, Kentucky)			X		22. Kindergarten-North Carolina Open Classroom (Raleigh, North Carolina)			X	
6. Kanawha County Schools (Kanawha County, West Virginia)			X		23. Northwest Colorado Learning Analysis Approach (Steamboat Springs, Colorado)			X	
7. North Sacramento Project (Sacramento, California)				X	24. Team Planning for Integration (Yuba City, California)			X	
* 8. The Diagnostic Prescriptive Teacher (Washington, D.C.)	X	X	X		25. Franklin Pierce Project (Tacoma, Washington Area)			X	
9. Helping or Crisis Teacher (Ann Arbor, Michigan)				X	26. Parkway Elementary School (Tacoma, Washington Area)			X	
10. The Madison Plan (Santa Monica, California)	X	X	X		27. Diagnosis and Prescription: A Route to Individualization (Oak Grove School - San Jose, California)			X	
11. Fail Safe (Albuquerque, New Mexico)	X		X		28. Brigadoon Elementary School- Individualized Instruction through Continuous Assessment (Federal Way, Washington)			X	
12. Statistician Model (Salt Lake City, Utah)	X				29. Project Catalyst (San Francisco, California)				X
* 13. Learning Problems Approach (Miami, Florida)	X				30. Santa Monica Plan (Santa Monica, California)				X
* 14. Consulting Teacher Program (Burlington, Vermont)	X								
15. Inservice Experience Plan (Storrs, Connecticut)	X								
16. Improved Learning Conditions (Seattle, Washington)	X								
17. Precision Teaching-Junior High (Seattle, Washington)	X								

\*University-Based Training Model

programs on such variables as program philosophy, administrative organization, staffing patterns, type and number of handicapped served, parent involvement, extent of inservice training, and attitudes of regular classroom teachers toward the program. However, the variations in format used in describing the programs and the imprecise terminology used, made detailed comparisons between specific programs almost impossible. A careful reading of these programs is useful, however, in that the general nature of the program is described and usually the significant features of the program are quite clear. Following is the authors impressions of various programs on several variables.

### Program Philosophy

The philosophical basis for mainstreaming usually was not stated explicitly in the program descriptions and, consequently, must be inferred from the overall description of the program. Inherent in the philosophy of most programs is the child's basic right to an equal educational opportunity—where equal means not the same educational experiences but rather “different” educational experiences based on the child's unique needs. Nearly all program descriptions expressed a belief that for a majority of exceptional children integration, not segregation, should be the first consideration in designing educational experiences. Most of the programs reflected a position that labeling and grouping of children into specific categories such as mentally retarded, emotionally disturbed, or learning disabled does not contribute significantly to the design of the instructional program (except perhaps for the severely handicapped). Finally, a number of the programs emphasize a position of decentralization of authority for program decisions to the individual school building level.

### Administrative Organization

Although the various programs reviewed are similar in underlying philosophy, they vary greatly in the type of administrative organization adopted and the degree to which it is described—making comparative statements difficult. Team teaching is frequently referred to as sometimes involving a special education teacher with three or more regular teachers in an open, multigraded setting. In other cases team teaching refers to the combining of a special education person and her students with the students and teacher in one regular classroom. Team *planning* is also emphasized in several of the programs. Texas programs rely on an Admissions, Review, and Dismissal (ARD) Committee to admit, periodically review

status, and dismiss children receiving special instruction. This team is chaired by the building principal. The remainder of the committee composition varies but could involve the sending and/or receiving regular and special education teachers, special education diagnostician or curriculum consultant, counselor, psychologist, and social worker. In contrast team planning in the Yuba City, California district refers to the cooperative weekly planning of individualized learning experiences for children by regular and special education teacher teams.

Other programs rely heavily on itinerant special education personnel. The Oak Grove School District (San Jose, California) combines an open space, team teaching (in this case 4 regular classroom teachers) arrangement with the services of a diagnostic/prescriptive strategist who consults with various teams on an itinerant basis. The Northwest Colorado Child Study Center provides itinerant support services of a psychologist, social worker, and speech therapist to support a special education resource person and regular classroom teacher in each building of the geographic area it serves in rural Colorado. The special education person in each building is referred to as a Child Study Teacher (CST) and provides resource services to the regular classroom teacher. The way a CST functions varies from building to building depending upon the administrative organization of the building, the needs and attitudes of the regular classroom teachers, and nature of the school population. Some CSTs may spend a considerable amount of time providing direct services to children, while others may spend most of their day in providing instructional support to regular classroom teachers.

A number of other programs also rely on the resource room model, such as Tucson, Arizona, and Tacoma, Washington, though both of these programs also provide self-contained classrooms for some children. The approach taken in the Richardson, Texas, program also relies mainly on a resource room arrangement, though self-contained classrooms, self-contained/integrated, and helping teacher arrangements are also utilized. A similar array of services exists in the Louisville, Kentucky, program.

In conclusion, although the terminology used in describing the various programs did not allow precise discrimination between many of the administrative arrangements, it is clear that programs across the country rely on a wide variety of administrative arrangements. These approaches range from open classrooms with regular and special education teachers participating in a team approach or team teaching with itinerant support to more common itinerant, self-contained, or resource room arrangements. While most programs emphasize one type of service

arrangement, it is usually acknowledged in the program description that a wide variety of service options are available to exceptional children.

### Type and Number of Handicapped Served

Since the programs reviewed usually claimed to provide services on a noncategorical basis, the type or severity of the handicapping condition usually was not clear. In many cases the programs reviewed were designed to serve mildly mentally handicapped, and others emphasized services to mildly learning disabled, emotionally disturbed, and other mildly handicapped children. The number of handicapped children served by the various programs was also unclear though some information was occasionally provided.

The Parkway Elementary School project indicated that the total student population of the school was about 400 and that the project served *all* of the mildly handicapped children in the school, but the specific number of handicapped children receiving services was not given. Other references to number of students served indicated what percent of the total student population were receiving services. These ranged from 8.6% in the Franklin Pierce project to 20% in the Richardson, Texas, program. The Tucson program provided information pertaining specifically to EMR children and noted that 95% of the EMR students were maintained in regular classes two-thirds or more of the school day. The description of the Tucson program also indicated that only 3 self-contained programs were operational in 1973 compared with 20 in 1969 when the mainstreaming emphasis was initiated. Similar kinds of data was provided by the Tacoma, Washington, and the Richardson, Texas, programs.

On the basis of the meager data provided it would appear that a variety of mildly handicapped children are being accommodated in the regular classroom with instructional support from special education personnel. This includes in some cases up to 90-95% of the mildly mentally handicapped population. The reader is urged to consider this information with caution as it will be noted later there is very little data which speaks strongly for the effectiveness of such services.

### Parent Involvement

Parent involvement in the programs reviewed appeared to range from strong involvement to no mention of parents' role or interest in the program. In the Franklin Pierce project, for example, parents were encouraged to observe the program. In other programs, it was mandatory that parents be informed of the student's problem as well as the remedial method being used. In the Richardson,

Texas, program the parents are part of the ARD committee and in Plano, Texas, the parents were used as volunteers. Parent volunteers were used in the Brigadoon Elementary School also. Other programs indicated involvement but did not specify how or the degree of involvement. Some programs only indicated favorable parental reaction to the program and others made no mention of parental involvement. The lack of information related to parental involvement in many of the programs may be attributed to reporting errors, since most states have now adopted "due process" legislation requiring parental involvement.

### Inservice

For the most part, all of the programs examined indicated a need and interest in inservice. For example, in the Tucson program some inservice education was provided by staff from the University of Arizona with additional inservice training conducted informally by the Tucson Public School staff. The Tacoma, Washington, program operated a "micro-college" which provided short courses and workshops for their teachers. The Franklin Pierce Project provided inservice for its staff through summer institutes. The Houston Plan and other programs also reported extensive inservice efforts. Other programs reported that more systematic inservice training programs for regular and special education staff was needed.

### Acceptance of Program by Regular Teachers

Acceptance of mainstreaming by regular classroom teachers was a topic frequently overlooked in the program descriptions; however, a few of the reports do supply such information. The Parkway Elementary School program and the Yuba City Plan indicated strong support of regular classroom teachers for mainstreaming. Other project reports note that the mainstreaming efforts received mixed teacher reaction, and one report noted that the responses ranged from outright rejection to only qualified acceptance. Since the projects varied considerably in number and type of handicapped children served, amount and kind of instructional support provided, and the amount of preparation and inservice provided, it is not unusual that the regular teacher reaction to the project would also vary considerably.

### Cost Factors

If regular administrators anticipate that mainstreaming efforts will result in a substantial reduction of costs, it is not evident from the program descriptions reviewed that such reductions ensue. Some program reports noted that mainstreaming resulted in only nominal increased costs,

while most programs reporting on the topic noted the costs were about the same as providing segregated classes, though some program descriptions noted that *more* children could be served in integrated programs than in segregated classes. One or two programs noted that if savings occurred it would be in the area of student transportation.

**Program Evaluation**

Of all the topics considered in reviewing the program reports listed in Table 1, the information pertaining to student evaluation proved to be the most disappointing. At least two-thirds of the 30 programs listed could be described as actual on-going programs in the public schools and, as such, might be reasonably expected to report some data on student achievement. Ten of these programs reported no evaluative information at all; three contained case studies or graphs as examples of student success; two relied on questionnaires to parents and/or teachers as a means of evaluating the effectiveness of the services provided; and two of the program reports indicated that evaluations were currently being planned. Four of the program descriptions contained minimally acceptable evaluation information. Three of the programs which presented data related to program effectiveness utilized some form of control groups as a means of interpreting the treatment effects of their particular program. Statistical comparisons were usually made between the groups on standardized test scores, rating forms and/or behavioral observations. The fourth program providing information related to program effectiveness did not use a control population but instead compared the scores of the environmental group with the national norms of the tests used. In all of the above cases, the data presented *tended* to favor the experimental programs, but the results were not at all impressive. In fairness to the originators of the programs reviewed, the reader is reminded that the purpose of these programs was to develop new and innovative delivery systems for providing services to exceptional children. In this regard, the programs are of much value. It is indeed unfortunate that information related to the effectiveness of the services provided was not also collected on a systematic basis, since the professional literature contains very little data to support the varying administrative arrangements for serving handicapped children. This fact is particularly true regarding mainstreaming arrangements for the mildly mentally handicapped.

The following is a brief overview of other research relating to the mainstreaming issue. Thorsell (1964) studied the effects of an itinerant teacher arrangement for

EMR pupils in several rural counties in Western Kansas. She identified a control group of EMR subjects in the same locale who were in regular classes but received no special education service and compared their performance with the experimental group (receiving itinerant services) on five criterion reference-like measures. The results favored the experimental group on two of the measures (calendar test and clock test), while no significant differences were found between the two groups on the remaining three measures (money test, common signs, and arithmetic combinations). However, in all cases the experimental subjects had higher adjusted means.

Carroll (1967) investigated the effects of partial integration of EMR students into regular classrooms. EMR pupils who attended special class half day and regular class half day were matched on IQ, age, and achievement with a group of EMR pupils who attended special class the entire day. The results indicated a significant decrease in self-derogatory statements as measured by the Illinois Index of Self-Derogation by the experimental group. The experimental group also made greater gains than the control group in reading. Flynn and Flynn (1970) compared the social adjustment of EMR pupils enrolled in special classes on a part-time basis (45 minutes daily) with a group of EMR pupils on a "waiting list." They found no differences in the two groups on social adjustment but noted that more of the EMR subjects on the "waiting list" (39%) were unconditionally promoted at the end of the year than the EMR pupils placed in part-time special classes (21%).

Studies dealing more directly with the differential effects of varying administrative arrangements of services for EMR pupils have been conducted by Tilley (1970) and Rodee (1971). Both Tilley and Rodee investigated the effects of three types of educational placement (itinerant, resource, self-contained) for mildly mentally handicapped pupils. Tilley essentially found no differences between the groups on measures of math, reading, self-concept, and behavior, while Rodee's investigation favored the resource group over the special class group in reading achievement but resulted in no differences between the groups on measures of word knowledge, word discrimination, arithmetic, behavior, or attendance. In contrast to the findings of Tilley and Rodee, Walker (1972) found that EMR subjects receiving instruction in resource rooms were significantly better academically and socially than a control group of special class students. Similar support for the resource room arrangement is noted by Hammill and Wiederholt (1972). They report that the measured growth in reading of a group of educable retarded pupils who attended noncategorical resource rooms had "...an aver-

age increase of .7 of a grade in seven months of attendance" (p. 34). Hammill and Wiederholt also report that a two year project involving the placement of 64 EMR pupils in resource rooms in Atlanta, Georgia (Barksdale & Atkinson, 1971) resulted in "...significant and impressive gains" (Hammill & Wiederholt, 1972, p. 34) in academic performance. A review of this study revealed that these "impressive" gains amounted to an average of about one and one-half years per student over a three year (not two) period from September 1967 to May 1970. While the gains may still be statistically significant, they do not appear to be impressive.

On the basis of the program reports and other research studies considered above, it is evident that there is little substantial data on which to state any firm conclusions regarding the effectiveness of various administrative arrangements for mildly mentally handicapped children. Nor does the data shed any light on the problem of what kind of services might be best for what kind of child? Even more important is the fact that MacMillan's (1971) plea for the systematic development of alternative models, designed, implemented, and evaluated cooperatively by public school and university personnel, seems to have gone unheeded. Though some of the projects reported on above do reflect the cooperative efforts of the university and public schools, the quality of the research does not always reflect this cooperative effort.

Currently, the most promising research and development effort related to the mainstreaming of exceptional children is Project PRIME—Programmed Reentry into Mainstream Education—(Kaufman, Semmel & Agard, 1974). This project was initiated in the spring of 1971 by the Bureau of Education for the Handicapped in cooperation with the Texas Education Agency. The project was designed to provide "...descriptive, comparative, explanatory, and predictive information of pupil academic, social, and emotional growth as they relate to comprehensive patterns of special and educational services" (p. 109). This project has a substantial funding base which allows for the collection of a wide array of standardized tests, observations, ratings, and other information related to variables being studied. The sample population encompasses more than 2,000 handicapped and nonhandicapped children in 650 classrooms. Some preliminary results from this project should be forthcoming in the near future.

## TWO ADDITIONAL MAINSTREAMING PROJECTS

Two additional mainstreaming projects are described in some detail below. They are included here because they

offer some promise as effective models which might be successfully replicated in other settings.

**Children without Labels—Fountain Valley, California<sup>2</sup>:** The mainstreaming of handicapped children in the Fountain Valley, California, School District is carried out in the midst of a decentralized enriched instructional environment involving team teaching, differentiated staffing, and individualized planning for every child in the district. All but a few severely handicapped pupils function within the regular education program and receive instructional support as needed by special education resource personnel. A brief explanation of the organization of the instructional resources in the Fountain Valley system follows since the regular education and special education programs are virtually inseparable.

The school district is comprised of 17 elementary (K-8) schools attended by about 11,000 children. Each of the schools has reorganized the use of space so that every six or eight classrooms are clustered around a Learning Center. All of the Learning Centers are well equipped with diagnostic and instructional materials. Each school has a primary (K-2), middle (3-5), and upper (6-8) Learning Center. The teachers of the 6-8 classrooms which surround the Learning Center are coordinated by a person designated as the Learning Coordinator. The Learning Coordinator does not have direct responsibility for a classroom of pupils but is assigned to the Learning Center with responsibilities for some individual and small group instruction particularly in remedial reading and math. This person is also responsible for coordinating the planning and instructional activities of the classroom teachers and support staff of the cluster team. The support staff consists of a special education resource teacher, speech clinician, and a school psychologist. Each of the 17 schools in the Fountain Valley School District have at least one special education resource teacher though several schools must share a speech teacher and psychologist with at least one other building. Several schools, designated as supplementary centers because they serve children with more severe handicaps, have two or more special education resource teachers.

The communication necessary among the teachers, support staff, and the Learning Coordinator for effective

2. The description of the Fountain Valley, California Special Education project was obtained from the Fountain Valley Title III ESES Project (Project #1232) and from two visits to the district by the author. Principal contracts for these visits were Mr. Milo Bibleheimer, Director of Special Education, Fountain Valley Schools, and Mr. Carl Cunningham, Learning Coordinator, Fulton School.

individualized planning requires a great deal of time. Extra time for this communication is provided through the Modified Teaching Day. One day each week, the school day is shortened for students, allowing the principals and their staff an uninterrupted afternoon for conferences, inservice, and individual planning.

*Special Education Provisions:* Prior to the 1969 school year the Fountain Valley School District provided special education services to exceptional children mainly through special classroom arrangements. About 50-60 EMH (educable mentally handicapped) students were bused to two centrally located schools and received instruction in four special classrooms. Some educationally handicapped pupils were also served in special classes. At this time parents, teachers, and administrators of the program were concerned by the poor academic progress of the students as well as their poor adaptive behavior.

With assistance provided through a Title III, ESEA Project (#1232) planning was begun in June 1969 on a new model to be implemented in the fall. During the subsequent school year the special class programs were gradually phase out, and by September 1970 the entire district-wide handicapped population was integrated into the regular classroom. Each school in the district was provided with a resource room teacher, and schools which accommodated more severely handicapped students were designated as supplementary centers and provided with additional resource teachers. Individual planning for the handicapped students was done in the same manner as for all students with the resource teachers providing planning and instructional assistance as indicated by the needs of the students and their regular classroom teachers. Most of the pupils were seen daily by Special Education Resource Personnel. After morning activities in the regular classroom, students were scheduled into the Learning Center to see the Resource Specialist where daily individual contracts were developed and implemented by either the regular teacher, the resource teacher, or both.

During the first project year the enrollment in the program consisted of 59 EMR and 31 EH students. The ages of the students in the EMR and EH program ranged from 6-2 to 14-5 and 6-8 to 13-2 respectively. The mean IQ for the EMR group was 71. The intelligence data for the EH group was not provided.

*Evaluation:* Objectives of the Fountain Valley program called for (1) increased academic achievement, (2) improved acceptance of handicapped children by the regular classroom teachers, and (3) improved self-concept of the project students.

Improved achievement for project students was based on whether or not the students maintained or exceeded their *expected gain*. *Expected gain* was computed by dividing the pretest grade equivalent score by the difference of the child's chronological age at time of pretest minus his chronological age upon entry in school. Eighty-one percent of the students met or exceeded their expected gains scores in reading, and 89% of the students met or exceeded their expected grade equivalency in mathematics.

A semantic differential test was used to determine the changes in acceptance of project students by regular classroom teachers. Although there were no statistically significant differences in the pre and posttest scores, the Title III report concludes that the overall acceptance by the regular classroom teachers was good and that lack of significant pretest/posttest differences was due to the high level of acceptance by teachers at the beginning and throughout the project. Similar conclusions were reached regarding the acceptance of the project students by their normal classroom peers.

The data, while minimally acceptable, does not afford undisputed support for the Fountain Valley approach to providing services for exceptional children. The author was told that approximately 20 TMR and severely emotionally disturbed students were provided services on a contract basis from other school districts. While this procedure is a good alternative for some students, it may be that other alternatives should be provided to the approximately 20% of the students who did not achieve the expected rate of gain in reading.

In the opinion of a respected colleague of the author—Carl Cunningham, who is a former special class teacher and now a Learning Coordinator in the Fountain Valley District—the current mainstreaming approach is far more rewarding to teachers, students and parents than the old special class arrangement. The author was also favorably impressed with the program and more particularly with the enthusiasm of the staff.

**The Pinckney Project—A Full Service School<sup>3</sup>:** The "Full Service"<sup>4</sup> education model resulted from the collective

3. The following report of the Pinckney Project was adapted from a report prepared for the April 1974 CEC Convention in New York, New York by the author and three doctoral students in Special Education Administration: Bob Campbell, Fred Geer, and Betty Weithers.  
4. The Pinckney program *does not* provide the service option of special class placement and thus technically does not provide a "full" range of services to exceptional children. Consequently, the name "Full Service" program is somewhat of a misnomer.

thought and effort of several faculty members and doctoral students at the University of Kansas and the professional staff assigned to the Pinckney Elementary School in Lawrence, Kansas.

The staff at Pinckney Elementary had been involved with University special education personnel in implementing a "Transitional" first grade room for children who experienced failure in kindergarten. An outgrowth of this work, which featured an "individualized" learning environment along with the present trend to "mainstream" EMR pupils, was a proposal by the staff at Pinckney and University personnel to integrate a number of EMR pupils into the regular primary grades at that school.

The basic concern of the people involved in the development of the project was to redesign the available instructional resources at Pinckney School so that a wide variety of optional instructional services could be provided which would maximize the possibility of success for children with mild to moderate handicapping conditions.

*Setting of the Project:* The Pinckney School is one of 16 elementary schools in the Lawrence, Kansas (District #497) public schools. Pinckney School is designated as a Title I school, which implies that a substantial portion of the population falls in the lower socioeconomic levels. Though the population of 224 children at Pinckney is predominately Caucasian (74%), the overall achievement level of the students is only slightly below the local norms. This does not imply that Pinckney is a "typical" elementary school, since the mean achievement level of the school is influenced by a sizeable number of children whose parents are faculty members or graduate students at the University of Kansas.

*Staffing:* The regular education staff assigned to Pinckney during the 1973-74 school year consisted of 9 regular classroom teachers grades K-6 and half-time specialists for physical education, music, and remedial reading. The principal was also assigned on a half-time basis but was assisted by an administrative intern. The school district special education office provided Pinckney and all Lawrence Schools with a school psychologist, a learning disabilities teacher, and an elementary counselor—each, one day per week.

One additional special education instructional support person was provided to the Pinckney project by reassigning a former self-contained special class teacher to the project. This person was not needed as a special class teacher since a number of primary EMR children from another elementary school in Lawrence were transferred from self-contained classes and reassigned to regular classrooms at Pinckney.

*Selection of Subjects:* The EMR students in the Pinckney project were selected from a pool of 34 subjects who were enrolled or on waiting lists for three self-contained primary special classes. The three special education classroom teachers, the school psychologist, and the principal of the building where the self-contained rooms were housed comprised the selection committee. The committee was first asked to identify EMR students who they felt had the potential for success in a regular class environment. Of the 34 students enrolled in the primary EMH classes, 19 were thought to have some potential for success by one or more members of the committee. Four of these students were excluded because they lived outside the Lawrence School District, leaving 15 possible candidates for the mainstreaming project. These 15 students were then rated individually by the committee members on a scale of 1-5 as most to least likely to meet success in a regular classroom. The ratings were averaged to produce a rank order list. The twelve highest rated students were designated as the experimental group to be transferred to the Pinckney School. Three of these children left the district during the summer and were replaced by the next highest ranked nominees. During the first semester one experimental student moved to another city, leaving a total group of eleven.

*The Full Service Program:* The basic purpose of the Pinckney Project was to create a comprehensive instructional support system for exceptional children which would allow them to be successfully accommodated in regular education classrooms. The essential program elements of the Full Service Instructional Support system are (1) a well-defined service hierarchy that clearly delineates the variety of service options that are available to the exceptional child, (2) a set of systematic procedures and prescriptive forms designed to enhance the communication between the regular classroom teacher and the instructional resource person(s), and (3) a system of accountability that focuses on (a) the effectiveness of the system in meeting the instructional needs of the children and (b) how well the components of the system are being implemented. These program elements are implemented within the broader philosophical stance that service for exceptional children should (1) be instructional based and (2) that the instructional alternatives for dealing with exceptional children should be developed at the building level.

*Instructional Based Service:* An instructional based service system requires that each child be provided our best instructional efforts within the regular class structure before removing the child to a "special education"

environment. Thus instruction, not psychometrics, should serve as the basis for moving the child from one instructional arrangement to another. This procedure does not imply that the school psychologist's role is de-emphasized. It does imply that the school psychologist's role is re-directed from a formal evaluation function that often results in the separation of the child from the mainstream of educational activity to a function designed to help teachers and other support persons to better understand the child to assist in the redesigning of the child's educational environment.

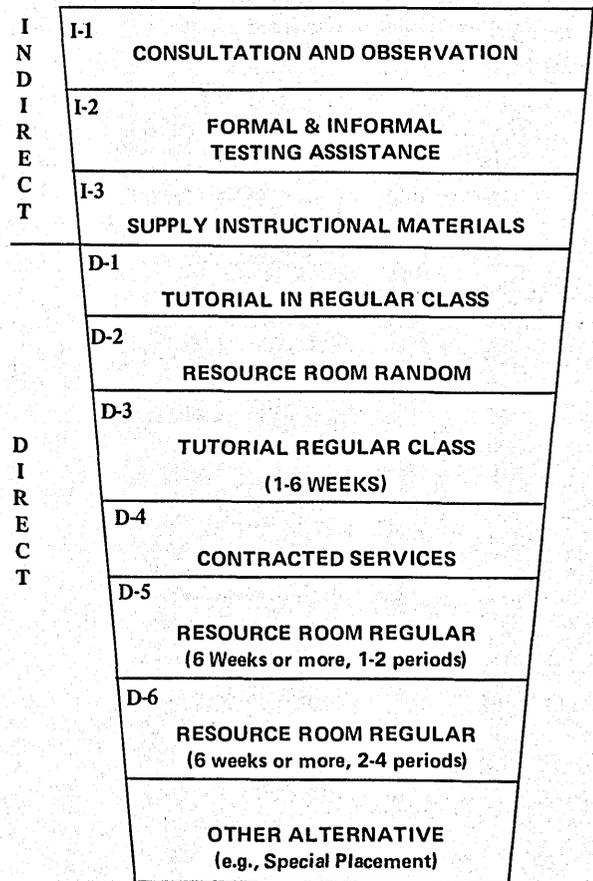
**Building Level Services:** When services for exceptional children are designed at each school, the entire faculty and the principal of that building can participate in defining the alternative services and instructional support needed in their building. The nature of the student population in each building determines the variety of service alternatives needed. Other variables at each school include kind and number of instructional support persons available and attitude of the principal and teachers in the building toward exceptional children. Some district-level support personnel may be involved by providing itinerant services to the various school buildings. In this instance, the itinerant support person's role would be dictated by the prevailing philosophy in the individual building. The district special education director would control the qualitative level of the programs by annually reviewing the alternative systems at each school and requiring adherence to the essential program elements described in the next section.

**Service Hierarchy:** The first essential program element of the Full Service Instructional Support System is the service hierarchy. One of the major benefits of a carefully defined service hierarchy is enhanced communication between the regular and special education staff. Regular education staff know what kind of services are available and what functional behaviors of the special educators are associated with each service. The services provided in a hierarchy may vary, but it is essential that they be cooperatively developed and explicitly defined by the building staff and the assigned instructional support persons.

The hierarchy of services accepted by the Pinckney staff (see Figure 2) was designed to serve children with mild to moderate handicaps. The hierarchy does not contain a provision for special class placement, so a few handicapped children who live in the Pinckney attendance area must be provided to another school in the district. In descending order the services range from the least intensive support service a child might need to the most intensive that could

be provided short of special class placement. The service options are characterized as either "indirect" or "direct."

Figure 2  
SERVICE HIERARCHY



The *indirect levels* of service provided by instructional support persons are limited to interactions between the resource person and the regular classroom teacher—that is, except for observation, *the resource person has no direct contact with the child*. An explanation of the indirect service follows:

**I-1 Consultation and Observation:** At this level of service it is assumed that the support persons have *experience and knowledge* which may be valuable to the regular teacher in working with children with learning problems. Support at this level may involve observation of the referred child in the classroom followed by *suggestions* of procedures or resources that are available to the teacher. The important concern at this level is that the help needed

by regular classroom teachers comes from the *experience* of the support person.

*I-2 Formal and Informal Testing Assistance:* At this level the support person will provide assistance to the regular classroom teacher in conducting the formal or informal testing that may be necessary to plan a program for the referred student. The support person *does not* work with the child at this level. Instead, the support person will furnish test materials or suggestions of informal means of assessment that will provide both the teacher and the support person with helpful information about the child. This level of support is intended to help the regular classroom teacher become a better academic diagnostician. When the teacher has obtained the results of the testing, she will communicate these results to the support person for help in program planning. This level of service will be further differentiated by the amount of help the regular classroom teacher needs in order to administer the tests. Depending upon the number of children in the class and heterogeneity of the pupils' ability level, some teachers may

- a. be able to administer the formal or informal tests during a regular class period while other children are working independently.
- b. need some help from the consultant or classroom aide to manage the class or some portion of the class while she is administering the tests.
- c. need the consultant to take over the class while tests are being administered. The important concern at this level of support is that the regular classroom teacher is responsible (with or without help from the support person) for the diagnostic work up.

*I-3 Supply Instructional Resources:* When the teacher and the outside support person have agreed on an instructional plan, the teacher may need assistance in locating and using the recommended resource materials. In the Pinckney project it is anticipated that by relying on local building, district, and university resources any material needed by a child can be made available within 24 hours. This level of support is different from I-1 in that the resource person may obtain or provide explanations regarding the use of a material. This level is different from I-2 in that it involves instructional rather than diagnostic resources. If a demonstration of the resource material is required with the child in order to help the teacher implement the program, the level of service is *not* I-3 but, instead, a form of direct service as described below.

In contrast to indirect service, the *direct levels* of service involve some direct interaction of the outside resource

person with the child. Interaction with the regular classroom teacher must also continue at these levels of services.

*D-1 Tutorial in Regular Class:* This level of service provides for the support person to work directly with the student *in his regular classroom*. This service will vary as a function of the needs of the child and the regular classroom teacher but could include formal or informal evaluation, skill training in an instructional area, or helping the student learn to use prescribed resource materials. This level of service is intended to assist the regular classroom teacher in implementing a program for the student that will then be continued by her. Service to the child at this level is limited to approximately two weeks.

*D-2 Resource Room Random:* At this level of service the emphasis is on one specific task. The classroom teacher will send the student to the resource room for help that cannot be provided at that particular time by the classroom teacher. This is not a continued service and will be completed when the student leaves the resource room.

*D-3 Tutorial, Regular Class (1-6 weeks):* This level of service is different from D-1 primarily in the length of time allowed for assistance by the outside resource person. This level may also be different from D-1 in that the D-3 services may involve three or more children where as D-1 will probably (though not necessarily) involve only one or two. As in D-1 it is the intent of this level of service that the tutorial service be maintained in regular classroom instructional program. If it becomes apparent during this level of service that some kind of long term support is needed to maintain the child in the regular classroom, the outside support person begins to arrange for D-4 services.

*D-4 Contracted Services:* This level of service can be implemented at any time during D-3. The support person and the classroom teacher evaluate the duration of the tutorial services needed (during D-3). If services in the classroom are needed for an extended period, the support person locates and trains a tutor to carry out the program. In the Pinckney Project the tutors who carry out these services include parents, aides, and KU students.

*D-5 Resource Room Regular Basis (6 weeks or more, 1-2 periods daily):* This level of service will be used only when a combination of D-3 and D-4 are inadequate for the instruction needed by the student. Rarely will this level be used without first implementing lower level services in the classroom.

*D-6 Resource Room Regular Basis (6 weeks or more, 2-4 periods daily):* Service at this level is the highest level provided within the school. Direct referral will not be made to this level but will be preceded by referral to other levels of service.

The hierarchy of services as described above is essential to the program for two important reasons: *First*, the descriptions of each level of service enhances communication between the resource person(s) and the regular classroom teachers. Each party understands what service can be provided, thus reducing the possibility that a regular teacher might "expect" a particular service yet "receive" another service by the support person. *Second*, the defined hierarchy insures that a variety of service options remain available. Theoretically, any resource room teacher or itinerant teacher could provide the variety of service options contained on the Pinckney hierarchy. In practice, however, support persons are likely to provide those services from which they receive the most reinforcement—that is, some support persons enjoy working with teachers while others derive more satisfaction from working with children. The support person's preference should, of course, be honored as long as the best interests of the children they serve are also being considered. The presence of the hierarchy serves as a constant reminder to the regular classroom teacher and the instructional support persons that the needs of exceptional children may require a variety of instructional strategies.

*Procedures and Forms:* Initially the procedures for implementing the full-service model and service hierarchy began with a regular classroom teacher filling out a simple referral form concerning a student in her room who was experiencing difficulties. The referral form itself consisted of only the most essential information and required only a few minutes to complete. Unlike most referral systems where referrals are routed through the principal to a school psychologist or itinerant teacher, the referrals at Pinckney went to a *committee of three regular classroom teachers*. The committee membership changed weekly on a revolving basis with each teacher serving for three consecutive weeks. Each week one new teacher was added as another teacher finished her length of term. The senior member of the committee was designated the chairperson. After reviewing each referral, the teacher committee was to decide the service level option appropriate for the child and either support or modify the child's classroom teacher's recommendation.

The teacher referral committee was seen as an important means of enhancing communication, placing more responsibility with classroom teachers and educating regular teachers about how to meet individual student needs of exceptional children.

Though the above procedures appeared to be appropriate at the beginning of the Pinckney project, some aspects of the project were modified at midyear. It was intended

that the teacher referral committee would gain sophistication about the needs of exceptional children via the decisions they were required to make in assigning service. Instead, the teachers felt unqualified to make such decisions and in most cases simply approved all services as requested. Consequently, the procedure for having referral routed through the teacher referral committee was discontinued, but it is expected that a modified version of this system may be reinstated during the coming year.

Currently, the referral and treatment procedure begins with the regular classroom teacher visiting informally with the instructional support person of her choice regarding a student exhibiting difficulties. This conversation is entered on a contact record as a consultative (I-1) level of service. At this time, the Instructional Resource Person puts the name of the student, name of the teacher, and a general statement of the student's problem on her *contact record*. If a service level other than I-1 is to be initiated, a formal *Instructional Service Plan (ISP)* is filled out jointly and maintained cooperatively by the chosen Instructional Resource Person and the regular classroom teacher. A new ISP is completed each week as long as the child is receiving service of an instructional support person. This procedure results in a continuous re-evaluation of the child's program by the instructional support person and the regular classroom teacher.

*Evaluation:* Of a total of 226 children enrolled in the Pinckney Elementary School, 64 were referred for service. Nine of the 64 referrals were EMR transfer students who were selected for mainstreaming. The remaining children were not labeled and represent children perceived by the regular classroom teacher as needing some kind of instructional support. It is interesting to note that only 9 of the 11 EMR children were referred for special education services. Two of the children were not referred, though their regular classroom teacher did refer other children from her class.

An attempt was made in the Pinckney project to collect data on how well the recommended system was being implemented as well as its overall effectiveness in terms of student achievement. Achievement data was available only for the EMR transfer students and was assessed with Peabody Individual Achievement Test (PIAT). Due to delays in organizing the project and the need to collect data for an April report, a total of only 5 months elapsed between the pretest (November 1973) and posttest (April 1974). Table 2 contains the results of achievement testing on the various subtests of the PIAT. The mean IQ of the Pinckney EMR students was 73 with a range from 63 to 83.

Table 2

**ACHIEVEMENT GAINS OF MAINSTREAMING  
STUDENTS IN THE PINCKNEY PROJECT**

PIAT Subtest	Pretest (Nov., 73)	Posttest (April, 74)	Gain
Math	1.1	1.6	.5
Reading Recognition	1.8	2.3	.5
Reading			
Comprehension	1.2	1.7	.5
Spelling	1.9	2.3	.4
General Information	1.4	2.3	.9
Total Test	1.5	2.0	.5

The mean gain on the total test of .5 represents an average gain of one month for each month the students were in school.

How accurately the service system was being implemented was examined by reviewing the number of instructional service contacts the children received at each of the levels of the service hierarchy. It was assumed that the services were arranged in descending order from the least intensive service (I-1) to the most intensive (D-6) and that more student contacts would be made at the upper levels than at the lower levels of the hierarchy. The project staff estimated that about 50% of the service contacts would be made at the top three levels of the service hierarchy, 35% at the middle three levels, and 15% at the lower three levels of the service hierarchy. An analysis of the services provided indicated that actual service contacts were 36%, 6%, and 58% at the top, middle, and bottom levels of service hierarchy respectively. Thus more services were being provided to children at the lower level (58%) where it was expected that fewer children would need service (15%). It is also interesting that few services (6%) were provided in the middle levels of the service hierarchy. The middle levels of the hierarchy generally require that the instructional support person be physically present in the regular teacher classroom for work with the child receiving service.

The discrepancy between the expected and actual service contacts could be due to faulty implementation of the project—that is, the support staff may have tended to provide services they felt most comfortable in providing rather than basing the kind of service on the needs of children. An alternate explanation is that the service hierarchy as defined in fact is not a hierarchy but simply a collection of unrelated or ill-defined services.

A final aspect of evaluation of the Pinckney Project involved the assessment of the regular classroom teachers' general feelings about the project and its effectiveness with the EMR transfer students. The rating scale used for this purpose was constructed and administered by Lois Llewellyn, one of the instructional support persons in the project. Regular classroom teachers responded to the rating scale anonymously on a scale of 1 (strongly agree) to 5 (strongly disagree). The results of these ratings are presented in Table 3.

The results of the Pinckney project are encouraging but, as in the case of the results of other programs, are of limited usefulness in providing general support to the concept of mainstreaming. A more comprehensive evaluation of the Pinckney model is being conducted during the current school year.

Table 3

**REGULAR TEACHER RATINGS OF THE PINCKNEY  
PROJECT AND RESOURCE TEACHER SERVICES**

Questions Pertaining to Overall Acceptance of the Project	Rating
1. I (regular teacher) feel comfortable working with the mainstreaming kids.	1.46
2. I (regular teacher) feel the mainstreaming kids have made progress under my tutorage.	1.90
3. I feel the mainstreaming kids would be happier in a special education class.	4.64
4. I feel the mainstreaming kids got along with the other children as well as others in my class did.	2.00
5. I feel the mainstreaming kids held the rest of my class back.	4.70
6. In my opinion, the mainstreaming kids should spend more time in resource room.	3.90
<b>Questions Pertaining to the Communication and Interpersonal Relationships of the Resource Teacher</b>	
1. Offers constructive suggestions for alternatives.	1.67
2. Sufficient support given.	1.67
3. Expresses herself clearly.	1.75
4. Availability for consultation and sharing.	1.83
5. Supports teachers.	1.58
6. Concerned for welfare of others.	1.50
7. Is enthusiastic.	1.50
8. Supplied enough materials.	1.75

## SOME FINAL THOUGHTS

The content of the material reviewed for this paper is of such a nature that few if any definitive conclusions or recommendations can be stated. It is clear that a large number of mainstreaming programs are in operation; that the programs vary considerably regarding the administrative organization and services provided; and that in most cases the originators of the program are satisfied with the *subjective* results of their projects. It is also evident that the most notable omission of the various components of the programs reviewed is evaluation. In lieu of conclusions or specific recommendations, the following suggestions are offered to administrators who may be considering the initiation or expansion of a mainstreaming program. While the suggestions are generally reflective of the literature reviewed in this paper, they also reflect the bias of the author.

1. The decision to mainstream should be accompanied by a decision to provide a comprehensive instructional support system for the children involved and their teachers.
2. Not all handicapped children will benefit from mainstreaming. Selection of the children to be involved should be done carefully and should be based on the recommendations of persons thoroughly familiar with the educational and social needs.
3. Mainstreaming plans should be developed at the school building level. Many school buildings are substantially different in terms of the administrative style of the principal, the attitude of the teachers, and the student population in the building. Thus, different approaches to mainstreaming may be necessary depending on the particular climate in the building.
4. Participatory planning may be the most important element in mainstreaming efforts. All personnel (regular and special) who will be involved with handicapped children should be allowed to participate in the planning of the program.
5. If regular classroom teachers are made responsible for exceptional children in their classroom, they should also be allowed to make decisions related to the kind and amount of special education support they, or the child, are to receive.
6. No mainstreaming effort should be attempted without serious attention given to providing inservice

education. A systematic inservice education program will be needed by both the special and regular personnel.

7. The procedures for providing instructional support in each building should be carefully delineated. A detailed description of the kinds of support services provided in the building should also be developed. This practice not only enhances communication among the staff of a building but also provides a basis for a student accounting system.
8. Develop a pupil accounting system as a part of the mainstreaming plan. This accounting system should provide minimally a cumulative record of numbers of children served, type of service provided, who provided the service, and for what duration the service was provided. This form of accounting allows the building staff to monitor their own activities and to determine whether they are providing the kind of service they intended to provide. The accounting system is also useful to the Special Education person responsible for the administration of decentralized service systems.
9. Obtain data related to student progress and other important variables such as teachers' attitudes toward the program. It is not necessary to obtain data on every child receiving service. However, a sample of children (every 5th, 10th, or 20th) receiving service should be followed up to provide some feedback regarding the effectiveness of the services rendered.
10. Report the results obtained from the program to administrators, teachers, parents, and community. Even poor results can improve morale if proper steps are being taken to remedy problem areas.

Finally, it is necessary to relate to the request made in the title of this paper, "Will the real mainstreaming program please stand up?" On the basis of the material reviewed here, it is safe to say that it is too early for the real mainstreaming program to stand up. As yet there is an insufficient data base for determining the effectiveness of the mainstreaming programs, and consequently none of the programs (figuratively speaking) have a leg to stand on! And lastly... should Dunn have done it? Of course, he should have—although the present mainstreaming programs do not offer proof that they are an improvement over traditional delivery systems, they are certainly no worse and hold the promise of much more.

## REFERENCES

- Adamson, Gary & Van Etten, Glen. "Zero Reject Model Revisited: A Workable Alternative." *Exceptional Children*, 38, 1972 (735-738).
- Beery, K. *Models for Mainstreaming*. Dimensions Publishing Co., (Box 4221, San Rafael, California 94903), 1972.
- Bennett, Annette. *A Comparative Study of Subnormal Children in the Elementary Grades*. New York: Bureau of Publications, Teachers College, Columbia University, 1932;
- Birch, J. W. *Mainstreaming: Educable Mentally Retarded Children in Regular Classes*. Leadership Training Institute/Special Education, University of Minnesota, 1974.
- Carroll, A. W. "The Effects of Segregated and Partially Integrated School Programs on Self-Concept and Academic Achievement of Educable Mentally Retarded." *Exceptional Children*, 34, 1967 (93-96).
- Deno, E. N. (Ed.) *Instructional Alternatives for Exceptional Children*. Council for Exceptional Children (no publication date).
- Deno, E. N. "Special Education as Developmental Capital." *Exceptional Children*, 37, 1970 (229-240).
- Dunn, Lloyd M. *Exceptional Children in the Schools: Special Education in Transition*. New York: Holt, Rinehart & Winston, 1973.
- Dunn, Lloyd M. "Special Education for the Mildly Retarded—Is Much of It Justified?" *Exceptional Children*, 35, 1968 (5-22).
- ESEA Title III Project 1232. "Handicapped Children in the Regular Classroom." Fountain Valley School District, Fountain Valley, California 92708.
- Flynn, T. & Flynn, L. "Effects of a Part-Time Special Education Program of Adjustment of EMR Students." *Exceptional Children*, 36, 1970 (680-681).
- Gallagher, James J. "The Special Education Contract for Mildly Handicapped Children." *Exceptional Children*, 38, 1972 (527-535).
- Garrison, M. & Hammill, D. "Who Are the Retarded?" *Exceptional Children*, 38, 1971 (13-20).
- Hammill, D. & Wiederholt, J. L. "Review of the Frostig Test and Training Program." In L. Mann & D. Sabatino (Eds.), *Review of Special Education*. Ft. Washington, Pa.: *The Journal of Special Education*, 1972, in press.
- Iano, Richard P. "Shall We Disband Special Classes?" *The Journal of Special Education*, 6, 1972 (167-177).
- Johnson, G. Orville. "Special Education for the Mentally Handicapped." *Exceptional Children*, 29, 1962 (62-69).
- Kaufman, M., Semmel, M. & Agard, J. "Project PRIME—An Overview" *Education and Training of the Mentally Retarded*, 9, 1974 (107-112).
- Kolstoe, Oliver P. "Programs for the Mildly Retarded: A Reply to the Crisis." *Exceptional Children*, 39, 1972 (51-56).
- Kreinberg, N. & Chou, S. (Eds.). *Configurations of Change: The Integration of Mildly Handicapped Children into the Regular Classroom*. Far West Laboratory for Educational Research and Development, 1973.
- Lilly, M. Stephen. "A Training Based Model for Special Education." *Exceptional Children*, 37, 1971 (745-749).
- Lilly, M. Stephen. "Special Education: A Teapot in a Tempest." *Exceptional Children*, 37, 1970 (43-49).
- MacMillan, Donald L. "Special Education for the Mildly Retarded: Servant or Savant." *Focus on Exceptional Children*, 2, 1971 (1-11).
- Pepe, H. J. "A Comparison of the Effectiveness of Itinerant and Resource Room Model Programs Designed to Serve Children with Learning Disabilities." Unpublished doctoral dissertation. University of Kansas, 1973.
- Pertsch, C. F. "A Comparative Study of the Progress of Subnormal Pupils in the Grades and in Special Classes." Unpublished doctoral dissertation. Teachers College, Columbia University, 1936.
- Rodee, M. W. "A Study to Evaluate the Resource Teacher Concept When Used with High Level Educable Retardates at the Primary Level." Unpublished doctoral dissertation, University of Iowa, 1971.
- Shattuck, Marquis. "Segregation versus Non-Segregation of Exceptional Children." *Journal of Exceptional Children*, 12, 1946 (235-240).
- Steigman, Martin J. "Paradox in Special Education: A Critique of Johnson's Paper." *Exceptional Children*, 31, 1964 (67-68).
- Thorsell, M. V. "The Education of Educable Mentally Retarded Children in Sparsely Populated Areas." Unpublished doctoral dissertation. University of Kansas, 1964.
- Tilley, Bille Kay. "The Effects of Three Educational Placement Systems on Achievement, Self-Concept, and Behavior in Elementary Mentally Retarded Children." Unpublished doctoral dissertation, University of Iowa, 1970.
- Van Etten & Adamson, "The Fail-Save Program: A Special Education Continuum." *Instructional Alternatives for Exceptional Children*. Council for Exceptional Children, 1973 (156-165).
- Walker, V. "The Resource Room Model for Educating Educable Mentally Retarded Children." Unpublished doctoral dissertation. Temple University, 1972.

---

## ALERT

### A C L D

The 12th annual international conference of the Association for Children with Learning Disabilities will be held in the Americana Hotel in New York City on February 26, 27, 28, March 1, 1975.

### C E C

On April 20-26, 1975, the 53rd annual international convention of the Council for Exceptional Children will be held at the Biltmore and the Los Angeles Hilton in Los Angeles, California. Exhibits will be on display in the Los Angeles Convention Center.

# CLASSROOM FORUM

*Edited by Alwyn H. Holloway  
Georgia State University and  
South Dekalb Children's Center*

## PROBLEM

*I am a regular classroom teacher. I have a particular student in my class who is very distractible and hyperactive. He never seems to get his work done, fights almost constantly in his chair, is distracted by minute noises and sounds. He has a very short attention span and is awkward and generally uncoordinated. He has been diagnosed as having a learning disability, but no services are available to him at this time. What are some changes I could make within my classroom to help him learn better?*

Not all children with learning problems can be served by special programs as soon as they have been tested and "diagnosed." Therefore, the regular classroom teacher who is willing to make some changes for a child with problems can mean much to the child by helping him to help himself. Special adaptations of both physical apparatus as well as learning materials might be helpful, depending on the individual child in question. Adaptations of learning materials will be discussed in next month's issue of *Focus on Exceptional Children*. Several suggestions regarding physical environment in the classroom will be discussed here. All suggestions will certainly not be necessary for all children. Therefore, it will be important to be selective in the adaptations made, in light of the student's individual characteristics and needs.

1. *Offices, partitions, cubicles.* The effectiveness of such devices has been the subject of much controversy. However, for some children who are very distractible visually and who have visual figure-ground problems, the use of partitions might help to limit some of the visual distractions in the classroom. Such offices, or partitions, could be made by hinging three pieces of plywood in two corners or by connecting three pieces of tri-wall, which is thick corrugated cardboard. Moveable screens or other partitions could be used. These "Offices" should not

be used as punishment and might well be used for other members of the class. If it helps the student, use it!

2. *Windows.* The child who is visually distractible might find it especially hard to concentrate on learning tasks if he sits near a window where outside activities are quite visible. Either the student should be moved away from the window, or some type of covering should be placed over the window to limit visual stimuli. Shades might be pulled down.
3. *Cabinets.* It is sometimes wise to have cabinets covered or closed in some way. Try to keep materials put away and as uncluttered as possible.
4. *Chalkboard.* As much as possible, try to keep the material placed on the chalkboard organized and uncluttered. The use of colored chalk to designate various areas of importance might bring important material into clearer focus. This is especially helpful to the child with figure-ground (visual) difficulties.
5. *Time Out Room.* It is sometimes helpful to have a quiet place where the student can go to "get himself together." This room might be used before or after the child explodes, usually as a result of frustration or lack of self-control. The child can retreat then return when in control. This room should be used cautiously. Some type of quiet, partitioned area might suffice.
6. *Carpet or Area Rugs.* Such floor coverings help to minimize the extraneous noises in a classroom. Such noises are especially disturbing to the child who is auditorily distractible.
7. *Background Music.* Soft music played to mask harsh classroom sounds has been helpful in many instances. This, too, would be helpful to the auditorily distractible child.
8. *Placement of Child in Classroom.* If the child tends to be visually distractible or to have visual figure-ground problems, he should be placed near the chalkboard if much boardwork is required. He should probably also be placed away from a "busy" window. If the student is auditorily distractible, he should not be sitting near the door or pencil sharpener.
9. *Various Centers in the Room.* For the hyperactive child, these centers can be especially important. They give the students an opportunity to manipulate materials and to use a variety of materials for

reinforcement of ideas and skills. They also allow for a change of scenery. The student will, however, probably need a structure for the centers, i.e., when and how to go to the center, and perhaps how long he should remain at the center. Some suggestions for types of centers are as follows:

- a. *Motor-Perceptual Center.* This center would encourage manipulation. Activities here might be parquetry blocks, puzzles, pegboards, etc. These activities help to harness hyperactivity constructively.
- b. *Discovery Center.* This center serves to help the student "learn to learn" from *all* senses. Science experiments can be conducted here. Materials might include feel boxes, smell activities, etc.
- c. *Listening Center.* This is one of the most important areas. It puts to good use some of the equipment found in the classroom and could utilize other equipment borrowed from special education programs and material centers. The Language Master (to reinforce phonics, number facts, word labels, etc), tape recorders (to reinforce math and reading skills), record players, and earphones (to help the student zero in on information) are included in this center.

- d. *Art Center.* All types of art activities can be structured here for independent use by students. Modeling clay, magic markers, paints, paper strips, glue and many other items can serve as frustration releasers. Some types of activities also serve to improve fine motor coordination.

The above mentioned suggestions are just that—suggestions! Many would be unnecessary for all children, but with selective adaptations as far as the physical environment is concerned the LD child might be able to increase his learning skills, even in a regular classroom.

---

All readers are invited to submit questions to the *Classroom Forum* column. Send your questions to the Editorial Offices, *FOCUS ON EXCEPTIONAL CHILDREN* 6635 East Villanova Place, Denver, Colorado 80222.

*FOCUS ON EXCEPTIONAL CHILDREN* back issues are available. Single copy of a back issue is \$1.00, while ten or more copies of the same issue are 50¢ each. *FOCUS ON EXCEPTIONAL CHILDREN* newsletter binders are now available for \$3.50 each.