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ABSTRACT

The report summarizes the results of discussions at a regional special education conference. Problem areas considered (and suggestions made) were relationships with regular education, image and attitude toward handicapped children and special education, teacher training, retention of good personnel, school's role in preschool programs, diagnosis and placement, communication, federal funding, and educational research. Included in the document are summary comments by Maynard C. Reynolds and the text of two major addresses: Is Much of Special Education (as we have known it) Obsolete?, by Lloyd M. Dunn, which is a blueprint for change in education for children with mild or moderate learning problems, including those classified as cultural-familial educable mentally handicapped; and Handicapped Children in Modern Society, by Robert J. Havighurst, also dealing with the children labeled educable mentally handicapped due to environmental and social disadvantage. (KW)

Final Report

Regional Conference in Special Education

May 23-24, 1968

Co-Sponsored by the U.S. Office of Education
and the
Department of Special Education
University of Minnesota

ABSTRACTED-CEC ERIG

Introduction

Under the supervision of Dr. Richard Weatherman, the Department of Special Education, in cooperation with the Bureau of Education for the Handicapped, U.S.O.E., planned and sponsored the regional conference in Special Education on May 23-24, 1968. Cooperation and assistance were provided by the Nolte Center for Continuing Education. Participants for the conference were to number 100, and were to be invited from the six state region of Minnesota, North Dakota, South Dakota, Nebraska, Montana, and Wyoming. The invitation list was compiled by contacting the various Directors of Special Education in the State Departments of Education, asking them to submit to Minnesota a list of leaders in special education from their respective states. Each state ultimately would be invited to have 15 representatives at the conference, with Minnesota inviting 25 persons; various representatives of regional offices also were in attendance. The participants were to be selected from local state agencies, colleges and universities, and private organizations, so as to provide a comprehensive overview of special education services and needs.

The program of the conference was planned in consultation with the U.S. Office of Education, Bureau of Education for the Handicapped. Keynote speakers were to be invited to present major addresses, but the bulk of the conference time was given over to small group discussions. In planning for these discussions, the State Directors of Special Education were asked to serve as chairmen of six groups, and graduate students from the University were asked to serve as group recorders. The actual content of the small group discussions, or the direction in which they were to travel, was left quite open - except for general guidelines suggested by representatives of the U.S.O.E. in a meeting with discussion leaders on the evening prior to the opening of the conference. Enclosed as attachments A and B in the Appendix are copies of the lists of participants and copies of the program.

This gathering of representative leaders for two days of intensive conversation with each other and with representatives of the Bureau of Education for the Handicapped was for the purpose of identifying major problem areas, and to discuss possible solutions and new approaches to these problems. The Bureau of Education for the Handicapped was eager to discover the thinking of the people of the region, and to learn how it might be of more assistance in charting a helpful course for federal programs. In accordance with these objectives, the bulk of conference time was devoted to the small group discussions. Speakers of national stature and reputation were invited to present major addresses on respective days; these addresses of Dr. Robert C. Havighurst and Dr. Lloyd M. Dunn are attached in the Appendix as items C and D.

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Major emphasis of this report is directed to summarizing the results of the two days of discussions. Recorders had been instructed to sit in on all discussions, and to pick out significant points of conversation. These summaries of the discussion groups were distilled into one paper following the first day's discussions; the discussions of the second day were summarized in similar form. Finally, these were combined into the present report.

In the welcoming session, Dr. James Gallagher of the BEH transmitted the following charge to the assemblage regarding the purposes of the discussion, and gave these instructions to the recorders:

- 1) Reports, hopefully, will offer more than a summary of conversations;
- 2) Discussions should focus around broad categories of problems; what do we need to know that we don't know now; what organizational or other problems keep us from moving forward?
- 3) Look not only for the problem but for the barriers or obstacles, and the suggested solutions;
- 4) Reports; hopefully, will be a distillation of what persons in the Midwest are thinking about special education;
- 5) Don't prejudge the importance of problems.

With this last point in mind, the reports of the recorders have been amalgamated and are herewith presented. Topics have been consolidated; where limited information was available, as much as is possible is included to give some understanding as to the kinds of concerns discussed.

Summary of Conference Discussions

1. Problem Area. Relationships with "regular" education.

Obstacle: Special Education programs are hindered as the field often is divorced from regular education in teacher training institutions and the public schools.

Solutions: 1) Training of regular administrators on the topics of Special Education is needed.

2) Models for administrative organization are needed which give visibility and appropriate influence to Special Education administrators.

3) In-service training should be available for total school personnel, not just for special class teachers..

4) Psychologists have the responsibility to not only diagnose, but also to interpret and to make suggestions for strategy within the schools and classroom.

2. Problem Area. Image and Attitude Toward Handicapped Children and Special Education

Obstacle: Handicapped children are often discriminated against in the same fashion as other minority groups.

Obstacle: An oft found attitude of apathy and indifference among staff of the regular programs of the district toward special education presents a barrier to both the offering and acceptance of special education services.

- Suggestions:
- 1) There is a need to get the school programs out of the "poor, pitiful Pearl" stage, staffed with qualified teachers, in decent quarters, with "new" appropriate teaching-learning materials, with appropriate sized classes, with facilities and budget to do other than the regular academic things of the regular school programs.
 - 2) Communication between and among teachers in special education and in the regular classes needs to be organized, fostered, and implemented.
 - 3) Get special education teachers to solicit the advice of regular classroom teachers so that the latter are involved in observations and become aware of the special problems.
 - 4) Team teach an academic area or special extra-curricular project (athletics, plays, etc.) with a regular class teacher.

3. Problem Area. Teacher Training Programs and Certification

Obstacle: How can we improve teacher training and teaching? The role of the teacher needs to continually be defined and refined.

- Suggestions:**
- 1) Recommend that the BEH be alert to and supportive of promising new models for teacher preparation.
 - 2) We need exemplary programs which will enable teachers and teacher trainers to see what can be done and how it is done.
 - 3) When promising models are developed, they should be put on films, etc., to be available for analysis throughout the country in teacher training and in-service training.
 - 4) Students enrolled in the education courses should be given the opportunity to work with children as soon as possible. Prospective teachers should engage in socially useful educational experiences.
 - 5) Re-evaluation of course work; it would appear that new teachers are exposed to a smattering of many things, but have no knowledge in depth.
 - 6) Methods courses should be designed to allow immediate application so that they become more meaningful.
 - 7) Teachers can take courses, but there should be some way to help insure that behavior is changed as well.
 - 8) Programs for teacher preparation should be developed around explicit teaching goals and needs rather than labels.

- 9) More adequate use should be made of modern educational media in teacher preparation.
- 10) Reciprocity among states in certification of special teachers should be encouraged.
- 11) A large voice for teachers themselves should be provided in establishment of certification standards.

4. Problem Area. How can we retain adequate teaching personnel?

Suggestions:

- 1) There is a need to devise a means for upward mobility for teachers on a career line within the classroom. Perhaps new scales or positions are needed in the teaching hierarchy.
- 2) Teachers who elect to remain in teaching should be given adequate salaries. It should not be necessary to go into administration to increase one's salary.
- 3) Arrangements should be made for recruitment, supervision, and support of special teachers
- 4) Some States with difficult retention problems may need to offer special training supports and salary inducements.

5. Problem Area. School's role in pre-school programs in Special Education.

- Obstacle:
- 1) Who does the diagnosing?
 - 2) Is there a purpose for diagnosing other than categorization?
 - 3) Perhaps it is necessary to emphasize need to get away from labeling children at this age.
 - 4) What happens after diagnosis?
 - 5) Where do we get specialized teachers?

- Suggestion:
- 1) It is important to involve the parents at this level.
 - 2) Need to launch teacher training and "exemplary " programs.
 - 3) Need model legislation.

6. Problem Area. Diagnosis and Placement

- Obstacle:
- 1) Adequate diagnosis of children. A particular problem arises in the delineation of educational retardation vs. mental retardation; there is an apparent failure to evaluate the whole child with a multi-disciplinary team. Evaluation instruments, further, are faulty; all of the relevant variables which should be considered for appropriate placement may not be being measured. Quality of diagnosis in rural areas is a particular problem.

Obstacle: Distance and unavailability of specialized personnel is an obvious hindrance.

- Suggestions:
- 1) Development of comprehensively staffed regional child study centers is a proposed idea;
 - 2) More attention to training of school psychologists should be given;
 - 3) More coordination should be provided in federal and State levels to implement cross-department diagnostic facility development.

7. Problem Area. Communication

- Obstacle:
- 1) Lack of communication between profession and community;
 - 2) Lack of dialogue within the community, coupled with lack of understanding of the need for mounting new programs;
 - 3) Lack of community feed-back to profession; perhaps parents are not being involved sufficiently;
 - 4) Inadequate dissemination of information within special education profession;
 - 5) Limited exchange of ideas between special education and general education; little communication with other professions.

- Suggestions:
- 1) Get college personnel back into the classroom - at least occasionally;
 - 2) Establish broadly-based informal organizations in the community and State for exchange of information;
 - 3) More imaginative use of new media for dissemination activities;
 - 4) Continue requirements for State-wide planning activities - with financial "teeth" in them;
 - 5) States should mandate formation of regional planning and service units;
 - 6) More Newsletters and definitely planned communication efforts are needed.

8. Problem Area. Federal Funding.

- Obstacle:
- 1) Lack of awareness of funds available;
 - 2) Unpredictable and late appropriations;
 - 3) Requirements for repeated applications after short intervals;

- 4) Short periods allowed for expenditures;
- 5) No attention to "gifted" pupils;
- 6) Limited funds for "construction";
- 7) Old "categories" get in the way of needed new programs.

- Suggestions:
- 1) Seek legislation to aid in construction of necessary specialized school facilities;
 - 2) Seek forward-financing and longer-term financing whenever possible;
 - 3) Reduce reapplication schedule, i.e., permit longer periods between complete reapplications, such as on training grants.
 - 4) Seek aids for gifted children.
 - 5) Work toward a well-documented total plan and schedule for federal role in special education.

9. Problem Area. Educational Research

- Obstacle:
- 1) Difficult to find studies with practical implications;
 - 2) Little research being conducted in the schools;
 - 3) There also is limited psycho-educational research regarding prescription and diagnostic placement of children;
 - 4) Little research being done at State Department level;
 - 5) Priorities for much of the research are set by Universities; one can't point an accusing finger, for school personnel must get together and identify their own priorities for the kind of information needed, and commit the universities for work at this level;
 - a) Implication here is for a need for teachers to be trained to identify their problems as to kind of information needed in solving their problems;
 - b) Teachers need flexibility in building their own ideas and programs in a smaller level.

- Suggestions:
- 1) Suggestion made that funds be made available for action research; teachers should become involved in individualized in-classroom research.
 - 2) Seek models for shared approaches to research by Universities, State Departments, and local educational agencies.

SUMMARY COMMENTS

By Maynard C. Reynolds

Introduction

The conference discussions were complex and present many difficulties to the summarizer. To simplify the task, a structure has been imposed upon the conference in what follows. Professor Roger Wilk¹ has outlined a scheme for approaching complex educational institutions and problems which involves four concepts as follows: production, organization, orientation and continuity.

In a crude way these concepts may be clarified in their meaning for education by using the analogy of industry. In industry, the terms 'production' and 'organization' have obvious meanings and they are used similarly in reference to Special Education. That is, we are concerned with producing better and more learning, better speech, better and more special teachers, etc.; and we are concerned about administration, resource allocations and decision-making--in other words, about organization.

The term 'orientation' is partly analogous to 'quality control' in industry, but also to larger aspects of policy, goals and research--all of which relates to establishing or adjusting on target or goal of one's efforts. Finally, the term 'continuity' refers to certain scheduling, planning and supportive activities which are necessary to give long-range continuity to major developments.

¹The model is so far unpublished. Professor Wilk is Chairman of the Division of Educational Psychology, University of Minnesota.

Obviously a full analysis of the conference or of any educational topic would involve very complex interactions of 'production' and 'orientation' and other dimensions of the structure. I shall not attempt a summary of such depth as to involve a great deal of interaction analysis. Rather, my remarks are formed quite simply under the four headings as specified above.

Production

Although some discussion at the Minnesota conference focussed on sheer production problems--i.e., simple recruitment and training of more teachers to run more programs for more handicapped children, the conference was remarkable for the larger attention given to needs for reshaping programs. Much doubt was expressed about the adequacy of the present program for handicapped children and, perhaps even moreso, about present preparation programs for their teachers.

There appeared to be readiness and desire for change--with the apparent implication that relatively low priority should be given to efforts for mere extension of present programs. Rather, resources should go increasingly to centers which show the insights, willingness and abilities necessary to develop and validate new approaches to special education. Although only a few specific lines of needed developments were mentioned, the following were among them as items needing priority attention as production problems:

training of teachers of the preschool handicapped

inservice training of regular school personnel

improvement of training programs for special education teachers

training of special education administrators

training of school psychologists and social workers for new and more adequately formulated roles

training of clinical teachers

more use of resource room model with less use of self-contained special classes.

In each of the above instances, as in all discussions, the conference stressed changing roles rather than mere extension of present roles.

Organization

A large amount of discussion at the conference centered on various kinds of organization problems.

One major aspect of this was growing concern for ways special education relates to and is coordinated with "regular" education. More specifically, there was concern about poor understanding of special programs by general administrators and by regular teachers. Apparently general administrators are receiving poor training on "special" topics, yet have positions of high influence in special education. The problem is further complicated in some instances where special education administrators have weak or poorly visible positions within the total school framework. Rising teacher militancy sometimes associated with tendencies to reject difficult pupils from regular school situations, is complicating special programs at the very moment when the desire is to achieve more integrated programs for the handicapped. Thus, relationships of "special" and "regular" education within community schools were seen as a major problem; a similar set of problems exists in some State Departments of Education.

A second set of organizational problems exists in the broader context of interagency coordination and total community life. Health, welfare and education resources—and families—all need to be mobilized to serve children who are disadvantaged by handicaps, but it is rare that a community is able to coordinate all of its resources to serve such children and their families. Frustrations abound for those who try to cut through the maze of organizations, jurisdictions, agencies and professions which should serve handicapped children. In the midwest coordination problems are exacerbated by the continued existence of many small

school districts in sparsely populated areas which lack almost all kinds of specialized services—and sometimes the necessary administrative arrangements to develop services are resisted by those who most need help. Health and welfare services are organized in oddly overlapping patterns of uncoordinated jurisdictions and regions—totally apart from education.

A third set of organizational problems exists in the domain of decision-making within the schools. Even when specialized resources are available within a school system, difficult problems of organization sometimes remain. School Psychologists and School Social Workers very often play major roles in decision-making about the children; but too often they are poorly prepared for their roles. In the midwest we are plagued by some itinerant child-placers who let a Binet kit do it all. In other areas we totally lack services of specialists who might work within the school system to help organize the specialized resources of the school on behalf of the handicapped children.

Several implications flow from these organizational problems:

. . .we badly need leadership in building an understanding of special education program among general school personnel, especially general administrators. Perhaps everyone has a role in this educational task, but particularly needed is attention by leaders in the field.

. . .closely related to the point just made is the need for more adequate articulation of a point of view or philosophy about special education. In other words, there is need for help in thinking about special education vis-a-vis regular education and for informed and broad dialogue on the topic

. . .major efforts are needed to find new and effective means of achieving more comprehensive and coordinated services for handicapped children and their families, services which cut across traditional lines of school, health, welfare and family functions. It appears that the newly emerging regional structures within states may be able to achieve the kind of comprehensiveness needed and it is urged that federal agencies use their influence to shape regional services toward comprehensive form

. . .Efforts continue to be needed in the midwest to achieve consolidation of small school districts and to form large intermediate units which can provide specialized services. It is hoped that every resource will be used to influence formation of needed new administrative structures

. . . Special education programs require an adequate number of professionally qualified school psychologists and school social workers. A major move is needed to increase and improve training programs in these fields--the emphasis here being on improvement of training so that their vast influence upon the organization of special education programs, from the perspective of individual pupils, might be more informed and valid

In addition to the above points--but fundamental to the "organization" of special education--is the need to deal effectively with the rising concern for Special Education's entrapment in a system of categories. Concerns have tended to rise out of voluntary groups organized on narrowly conceived categorial lines and legislation has tended to follow similar piecemeal approaches. Sometimes all of the categories are added together in a piece of legislation but with lots of excluded territory remaining to present problems. Programs of services have tended to organize around similar sets of topics or categories . . . rather than to follow other strategies. For example, instead of training language specialists who might serve the retarded, deaf and disadvantaged--we tend to require training of specialists in each of these fields or categories. Problems of organization also tend to derive from bureaucratic organization at federal and State levels which is sometimes narrowly conceived.

There is fundamental need to introduce more degrees of freedom in our present systems, never losing our position as advocates of education of the handicapped, yet seeing more opportunities for flexible orientation in organization of teacher preparation and school programs. In the field of health, a concern for cancer may cause legislation on that topic--but programatic developments may spread all the way from roentgology to chemical analysis of charcoaled sirloin steak. Similarly, I believe, we must open up the system that now forces an artificial isomorphism and between categories of concern and legislation and categories for program orientation. Obviously this is complex and controversial territory. Changes made here will have profound implications in every aspect of Special Education.

Orientation

A considerable amount of discussion centered on what might be termed 'orientation'. A growing concern here was again related to the apparent lack of understanding and leadership by general school administrators regarding special education programs. Not everyone agrees that it should be a school function to extend and differentiate itself so as to accommodate all children. Special educators still confront regular educators rather regularly at the level of basic philosophy and basic policy when considering school programs for severely handicapped and "misbehaving" children. Continuing leadership is needed to clarify objectives and roles of the school.

A rather surprising amount of discussion at the conference dealt with the topic of research and development as other approaches to reorientation of special education programs. Particular emphasis was given to the need to make research an integral part of school operations, rather than to leave it as something that professors do--somewhat irrelevantly, too often. Much emphasis was given to the need for more effective translation and dissemination of research findings--using newer media as well as old and demonstration centers.

Perhaps more stressed than any other topic under this rubric was the need to develop exemplary projects in all varieties of special education endeavors--and then to use these for dissemination purposes. The thought seemed to be that we have developed very rapidly in special education, but with poor models in view. We ought to invest heavily in development of a relatively few really high quality operations and seek outreach from them. The 15% allocation to the handicapped under Title III of ESEA provides the obvious mechanism here.

Continuity

Undergirding all efforts in the field must be basic planning and scheduling activities. Discussions at the conference reflected much satisfaction with recent

State planning activities under Title VI, but very great concern for uncertainties and reversals in levels of federal funding of programs. Should all else go well, the total venture could flounder and turn to despair if the federal financial role is too unpredictable. Obviously it is not possible to staff projects and then denude them in fickle fashion according to federal budgetary roller-coasting. It may be difficult to develop a stable federal funding pattern; nevertheless, the realities of frustration must be faced. Actually, Special Education has fared quite well, so far, except for agonies over Title I of ESEA and PL89-313 programs. The lack of significant funding of Title VI of ESEA, after major planning efforts, has been severely frustrating.

Concern was also expressed for some scheduling problems: such as failure to train research personnel, school psychologists, and preschool teachers in advance of the growing needs for them. We were fortunate, on the other hand, to have the 'advanced' scheduling provided by the relatively early launch of training programs for leaders in the field of mental retardation under PL 85-926. We would urge a broad and long-range planning effort in BEH which would attempt to schedule fundamental developments in carefully sequenced ways.

Conclusion

In final summary this conference has proposed a number of priority items for attention, as follows:

more innovation in teacher education

better orientation of regular administrators and teachers to the field of special educators

seeking of more comprehensive forms of services to handicapped children and their families, with specific emphasis on within-State regional structures.

better articulation of "regular" and "special" education programs

increased attention to philosophical and policy issues which now confound all all program development--e.g., attending to the "category" or "classification" of pupils and to policy issues concerning school obligations to the severely handicapped

need to develop exemplary programs and demonstration centers in all facets of special education

needs to extend research activities, particularly those associated with developments in field situations

specific needs to increase and improve training programs in certain fields of major shortage: such as researchers, preschool teachers, school psychologists and school social workers.

need to make federal funding more predictable as a basis for program continuity

need to develop a plan for BEH which considers long-range scheduling problems and goals in the total field.

In closing, it perhaps deserves remark that the people assembled at the Minnesota Conference were almost totally from sparsely-populated rural-dominated States. I think it understandable that relatively little attention was given here to the major problems of core areas of metropolitan areas. Except for Minneapolis-St. Paul, the six state "region" as defined for this conference includes no large cities. It is clear, I think, that in national perspective we would urge high priority for Special Education activities directed to big city special education problems. But from our view, there is perhaps equal need--except from the viewpoint of numbers--for specialized services in rural areas.

IS MUCH OF SPECIAL EDUCATION (as we have known it) OBSOLETE?

(A blueprint for change in special education for children with mild to moderate school learning problems, including those now classified as cultural-familial, educable mentally retarded)*

by

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Recent developments in education suggest the possibility of improving instructional procedures for children with mild to moderate learning problems, of which a large proportion are now classified as cultural-familial, educable mentally retarded. Since the inception of special education in local school systems, self-contained special day classes and schools have been the pattern for serving most children who did not "fit into" the self-contained regular grades. As a result of compulsory school attendance laws and other social forces, after the turn of the century, the schools were called upon to educate "all the children of all the people". But, no matter how hard they tried, regular teachers found that not all children could learn effectively. Too, many of these slow learning children became behavioral as well as instructional problems--draining off a disproportionate amount of the time and efforts of the regular classroom teachers. Thus, the schools and the slow learning children "were forced into a reluctant mutual recognition of each other" (Hollingworth, 1923). Since local public schools could no longer "expel" and "forget about" these children and youth, and since they could not be assimilated into the regular class program, self-contained special schools and classes were devised as a method of transferring these "misfits" out of the regular grades. Of course, regular teachers and administrators sincerely felt they were doing these children a favor by removing them from the pressures of an unrealistic regular curriculum. Too, special educators fully believed these children would make greater progress in the special schools and classes. And these practices and beliefs have continued to this day. For example, as recent as December 18, 1967, a local affiliate of NEA has proposed to submit to negotiations with the local school board the demand that "special classes be provided for disruptive children". Because of many forces, including teacher-association demands such as this one, school integration strategies, etc., it is not surprising that such special services have grown more in the past five years than ever before, and are likely to be demanded even more in the future by teachers and their negotiating organizations. However, since their inception and continuing today, enrolled in these special education facilities have been an undue proportion of children from low-status

*See footnote at end of paper.

minority groups including the Afro-American, American-Indian, and Mexican-Puerto Rican-American children, not to mention children who came from Non-Standard English speaking homes, as well as migrants and certain types of immigrants. A remarkably high relationship has existed, and does exist, between socio-economic status and special education placement--especially in urban and rural pockets of poverty. It is my best guess that 60 to 80 percent of educable mentally retarded pupils in special day classes today are children of the poor. This expensive proliferation of self-contained special schools and classes raises serious educational and civil rights issues which must be squarely faced: Do self-contained special classes (which in the past may have provided the only available school alternative to self-contained regular class placement) provide the only alternative today? Do slow learning children in special classes make greater progress than in the regular grades? Must special classes be considered a form of "tracking", and do they discriminate against the disadvantaged? Are schools growing in their ability to deal with individual differences to where they can now service the child with learning problems in ways other than the self-contained, special classes or tracks? In short, what should we be doing for children with mild to moderate school learning problems, and whose IQ scores often fall between 65 and 80?

Changes in the School's Ability to Deal with Individual Differences

To project an emerging pattern of adequate special education services for such children, it seems to me we must examine changes in education generally. These are exciting days in American Education. In fact, thanks to increased support at the local, state and federal levels, it can be truly said that we have embarked on an American Revolution in Education. Four powerful forces are at work to increase the ability of the schools to deal better with individual differences in pupils.

First, are changes in school organization. In place of self-contained regular classrooms, we have more and more team teaching, ungraded primary departments, and flexible groupings. Too, even more radical departures in school organization are projected. Included are: educational parks in place of neighborhood schools; metropolitan school districts cutting across our inner cities and wealthy suburbs; and perhaps most revolutionary of all, completing public school systems. Furthermore, and of great significance to those of us who have focused our career on slow learning children, public nurseries as well as kindergartens are becoming available to our type of children--children who so often come from our urban and rural slums.

Second, are curricular changes. Instead of the standard diet of look-and-say readers for children, we have many new and exciting options for teaching written language. Examples are the Initial Teaching Alphabet, Rebus, and Words-in-Color. New mathematics teaches concepts in the primary grades formerly reserved for high school. More and more programmed textbooks and other materials are finding their way into the

classroom. Ingenious procedures, such as those by Bereiter and Engelman (1966), are being developed to teach oral language and reasoning to preschool disadvantaged children.

Third, are the changes in the range of professional persons employed by the schools. Thanks, in large measure, to compensatory education services provided by the Elementary and Secondary Education Act, a wide array of ancillary personnel are now available to school children and their teachers, including school psychologists, elementary guidance workers, physical educators, and remedial educators. In addition, more teacher aids and technicians are working in schools. Teachers are functioning in different ways, serving as teacher coordinators and cluster teachers, thus providing released time for the preparation of lessons. Too, regular classroom teachers are better trained, and thus more able to deal with individual differences--though much remains to be done in this respect.

Fourth, are the hardware changes. Computerized teaching, teaching machines, feedback typewriters, ETV, video tapes, and other materials are making possible auto-instruction and self-learning, as never before.

And we are barely on the threshold of this American Revolution in Education. We must ask what the implications of it are for special educators.

In a very real sense, special education was the forerunner of today's compensatory education. Our purpose has been to extend services to pupils whose individual differences could not be handled within the mainstream of education. But the standard condition of the past (and often today) was usually a self-contained elementary grade with 30 to 35 pupils enrolled, taught by an ordinary teacher, on her own, with essentially no support. Now, more and more, general education encompasses a variety of school organizations, a cadre of knowledgeable regular and ancillary personnel, an array of instructional procedures, and a wealth of equipment and supplies. Assumably, general education is growing in its ability to serve adequately many pupils who were formerly labeled handicapped, and placed in special education. Will this reduce the need for special education for pupils with mild to moderate learning problems?

Romaine Mackie (1967) of the U.S. Office of Education, in a speech on this topic delivered in Montpellier, France, addressed her remarks to the question: "Is the modern school changing sufficiently to provide adequate services in general education for large numbers of pupils who have functioned as handicapped in the schools?" In her view, hundreds--perhaps even thousands--of so-called retarded pupils may make satisfactory progress in schools with diversified programs of instruction, and thus never need placement in self-contained special classes.

In my view, "the writing is on the wall" for much of special education. Special education for the mild and moderately handicapped, as we have known it in past decades, is obsolete. The emerging revolution in general education will have a profound impact on special education.

Never in our history has there been a greater urgency to take stock, and to search and find a new role for most special educators. It is my thesis that special education must initiate its own revolution before it is too late. Change is inevitable. Allow me to present a most cogent argument for urgency.

The Judge Wright Decision

It is a truism that the public schools in the United States and Canada are institutions of society and must operate within the context determined by its citizens. Seldom has it been more dramatically illustrated than by the decision of Judge J. Skelly Wright concerning "the track system" in the schools of the District of Columbia. He ordered that the track system be abolished, contending it was discriminatory to the racially and/or economically disadvantaged and therefore in violation of the fifth amendment of the Constitution of the United States. One may argue that this ruling will be overruled as a result of an appeal by former Superintendent of Schools, Dr. Hansen. One may object to a Judge ruling on professional education. However, it is interesting to note that Dr. Harry Passow (1967) has just completed a study of the same school system and reached the same conclusions as Judge Wright--basing his arguments on professional considerations. Supporting these reports is the professional literature on the efficacy of heterogeneous versus homogeneous groupings. Generally, homogeneous groups work to the disadvantage of the slow and handicapped children, and somewhat to the advantage of more able children. Teachers appear to concentrate on slower pupils somewhat to the neglect of brighter students. A recent study by Coleman and Campbell (1967) supports the first portion of this generalization more than the latter. In this national survey it was found that academically-disadvantaged Negro children in segregated schools made less progress than those of comparable ability in integrated schools. However, racial integration appeared to deter school progress very little for the Caucasian, more academically-talented children.

What are the implications of Judge Wright's rulings for special education? I propose to you that special schools and classes in local school systems are a form of homogeneous grouping and tracking. Awareness of this fact was demonstrated when the District of Columbia, as a result of the Wright decision, as I understand it, abolished, in September 1967, Trace #5, which consisted of self-contained special classes for educable mentally handicapped children. These pupils and their teachers were returned to the regular classrooms. Already, there are complaints from the regular teachers that these children are taking too much of their time. Too, a few of the parents of the handicapped are observing that their children (who formerly were in special education) are frustrated by the academic program, and are rejected by the other children. Thus, there are efforts afoot to develop a special education program in D.C. which cannot be labeled a track. Very probably self-contained special classes will not be tolerated under the present court ruling but perhaps itinerant and resource room programs would be. What

should be recommended for the District of Columbia? What, if the Supreme Court rules against tracks, and all self-contained special classes for children with mild to moderate school learning problems across the Nation are closed down next Fall? What new direction should be thought through now in light of such a possibility?

Another argument for change are the findings of studies on the efficacy of special classes for the educable mentally retarded. These results are well known (Kirk, 1964). They suggest consistently that retarded pupils make as much or more progress in the regular grades as they do in special education. Recent results of studies, including those by Hoeltke (1966), and by Smith and Kennedy (1967), continue to be the same. Johnson (1962) has summarized the paradox well:

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, in 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 (Johnson, 1962, p. 66).

What other efficacy studies that are available on special day classes for other mild to moderately handicapped children, including those for emotionally handicapped children, reveal the same results. For example, Rubin, Simson, and Betwee (1966) found that disturbed children did as well in the regular grades as in special classes. In fact, they concluded that "this is little or no evidence that special class programming is generally beneficial to emotionally disturbed children as a specific method of intervention and correction." Such evidence as this is another reason to find better ways of serving handicapped children than through self-contained special schools and classes.

Developed below are two major changes which constitute my attempt at a blueprint for change. In the first case, a fairly radical departure will be proposed in clinical procedures for diagnosing, labeling, placing, and teaching children with mild to moderate learning difficulties. In the second case, curricular modifications including substantial changes in emphasis in what we teach these pupils will be sketched out. These are intended as ideas or proposals which need to be examined, studied and tested. What is needed are programs based on scientific evidence as to their worth, and not more of those founded on philosophy, tradition, and expediency.

Clinical Procedures

For that 60 to 80 percent of our children in special education (those with mild to moderate learning difficulties), I wish to argue that existing diagnostic procedures--which are performed largely by non-educators, and which focus on what is wrong with children and why--are of little use. I contend a more rewarding procedure would be for special educators (supported by others) to engage in a continuous assessment of the assets for learning of such children which has been called by Sylvia Richardson "diagnostic teaching". This suggests a need to do away both with many of our existing disability labels, and with our present practice of grouping children homogeneously of a similar disability label. We should try keeping these children and their teachers more in the mainstream of education with special educators serving as evaluators, clinical teachers, team teachers, consultants, and material developers. Allow me to develop the rationale for this proposal.

Generally, diagnostics for handicapped children are now being conducted by one of two procedures. In the one case, a work-up is provided by a multi-disciplinary team usually consisting of physicians, social workers, psychologists, speech and hearing specialists, and sometimes educators. The goal of this committee approach has been to look at the complete child. But what has been the central outcome of these work-ups? It has primarily been to determine the major deficit of the child, so as to label him mentally retarded, perceptually impaired, emotionally disturbed, minimally brain injured, and so forth. Too, the team usually has looked at causation. Diagnosis stops when something has been found wrong with the child, and the "why" has either been found or conjectured.

The other common diagnostic procedure (usually used with the more mild learning impairments, including the educable mentally handicapped) has been to leave the assessment of educational potential to the psychologist. Generally, he administers--in one sitting--a psychometric battery consisting (at best) of individual tests of intelligence, achievement, and personal adjustment. Again the purpose is to find out what is wrong with the child, so he can be labeled, and thus made eligible for a specific type of special educational service.

What is the evidence that both these hallowed diagnostic approaches have probably done more harm than good?

First, we need to ask what effects these disability labels have upon the attitudes and expectancies of teachers. Here we can extrapolate from studies by Rosenthal (1966). He set out to determine whether the expectancies of teachers influenced pupil progress. To answer this question he worked with elementary school teachers across the first six grades. Pretest measures were obtained on their pupils through the use of intelligence and achievement tests. Then a random sample of pupils was drawn and labeled "rapid learners". Teachers were told that these children would show unusual intellectual gains and school progress during the year. All pupils were retested at the end of the school year. While

not all differences were statistically significant, the gains of the children labeled "rapid learners" were generally significantly greater than those for the other pupils. The changes were especially dramatic in the first and second grades, and less so in grades 3 through 6. It is interesting to extrapolate from this Rosenthal study to the expectancy of teachers of the handicapped. We must suspect that one of the prices we often pay in labeling a child "handicapped" is to reduce the teacher's expectancy for him to succeed. It seems to me we cannot continue to recommend a series of disability labels without learning more about their effect upon the attitudes and expectancies of the teachers.

Second, let us ask ourselves what effects these disability labels have on the pupils themselves. Certainly, none of them are badges of distinction. Try as we will to come up with less noxious ones, the stigma is there. Separating a child out from other children in his neighborhood (or removing him from the regular classroom for therapy or special class placement) probably has a serious debilitating effect upon his self-image. Here again, our research is limited, but supportive of this contention. We have the work of Goffman (1961) on the stripping and mortification process that takes place when an individual is placed in a residential facility. Too, Meyerowitz (1961) demonstrated that a group of educable mentally retarded pupils increased in feelings of self-derogation after a one-year placement in special classes. Too, Meyerowitz (1967) has published more recent results which indicate that special class placement, instead of helping such a pupil to adjust to his neighborhood peers, actually hinders it. While much more research is needed, we cannot ignore this evidence. Removing a handicapped child from the regular grades for special education probably contributes significantly to his feelings of inferiority.

How can we counter the effects of disability labels on teachers and pupils? In my view, the adoption of a new approach to educational diagnosis and clinical teaching will obviate the need for them.

First, educators must assume responsibility for their own diagnosis, and approach it from a positive rather than a negative (what's wrong) point of view. What we need to know about a child is how much he can learn, under what circumstances, and with what materials. If these are our purposes, then the diagnostic methods currently in use are not doing the job. However, I would suggest that two more appropriate procedures are available to us. Both of them probably need to be employed. One is to develop and use psychoeducational instruments which actually measure learning. The other (and closely related to it) is to employ samples of behavior shaping materials to see how much progress a child makes with them and under what conditions.

It can certainly be argued that most existing psychometric tests simply yield such global scores as IQs, MAs, SQs, AAs, etc., and measure what a child has learned, not what he can learn. What we need are tests which have two characteristics. First, they should yield a profile of characteristics useful to the teacher. What is exciting about the

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Illinois Test of Psycholinguistic Abilities is that it does just that. Thus, we can find out where a child is now operating in a specific facet of behavior, and design a program of instruction to improve or shape his behavior from that point. Second, new-type psychometric tests should incorporate within them measures of ability of a child to learn samples or units of materials at each of the points on the profile. Said again, our tests, in the past, have largely been achievement tests of how much a child has learned up to the point of the administration of the test. What is needed are tests which measure the ability of children to learn in a particular dimension. If new-type psychoeducational tests had these two characteristics, it is clear they would accomplish essentially the same ends as the behavior shapers--only under more standardized conditions.

What the behavior shaper does in diagnosis is study what behaviors the child now has--in the dimension to be worked upon. Then he designs a sequential program to move him forward from that point. At the same time, he investigates the utility of different reinforcers administered under various conditions. Too, he tries out different modalities for reaching the child. In short, since the instructional program itself becomes the diagnostic device, this can well be called diagnostic teaching. The special educator needs to apply these same techniques. She should first start by observing the child's behavior in an important dimension. She should then design a step-by-step program of instruction for shaping this behavior in a desired direction, then trying the program out in different ways, and modifying it as the need arises until it is found effective. At the same time, she needs to find out what reinforcers are most useful, including concrete rewards, tokens, praise, and information feedback. Failures are program and instructor failures; not pupil failures. We must have as our guiding dictum the posit of Bruner (1967) that almost any child can be taught almost anything if programmed correctly. Thus, this diagnostic procedure is viewed as the best available since it enables us to assess continuously the problem points of the instructional program against the assets of the child.

If one accepts these procedures for evaluation and instruction, then clearly the need for disability labels is reduced. Our job as special educators is to work as a member of the school's instructional team to focus on children with mild to moderate school learning problems. Our role would be to study the existing behaviors of these children on a particular dimension where he is having trouble, and to design instructional procedures for shaping this behavior toward desired goals. We would become applied behavior modifiers--remedial teachers--corrective therapists--clinical educators--diagnostic teachers--prescriptive educators. Our role would be, not only to devise these prescriptions, but to test them out until effective procedures are found. Probably, the clinical educator would operate as a member of the school instructional team--serving as a resource teacher in larger schools, or as an itinerant instructor in small schools. She would be available to all children in trouble (except the severely handicapped) regardless of whether they had, in the past, been eligible for such labels as cultural-familial educable mentally retarded, minimal brain injured, educationally handicapped, or emotionally disturbed. As general education becomes more flexible and more comprehensive in its services, children will be regrouped recurringly

throughout the school day. For specific help, children with a specific learning problem may need to work with a specific instructor (or clinical special educator) for a period of time. But, for other parts of the day, the special educator probably would be more effective in developing specific exercises which can be taught by others in consultation with her. Thus, the special educator would really begin to function "as a part of, and not apart from, general education," instead of what has been the case where both the special educators and these children have been rather segregated. Clearly, this proposed approach recognizes that all children have assets and deficits, and not all of them are permanent. For the period when a child is having trouble in one or more areas of instruction, the special educator is available to devise a successful teaching approach for him. When this approach can be taught by some other educator, that educator takes over, freeing the special educator to devise a satisfactory program for some other pupil encountering learning difficulties.

It is recognized that many of today's special educators--especially of the educable mentally retarded--are not prepared to serve this function. These teachers would need to withdraw from special education or develop the needed competencies. Recently, Dr. Sullivan of Berkely proposed that schools close down for an extended period of time to retrain all teachers and develop new approaches to teaching. Perhaps we in special education should do just this with a number of our more able special educators of the educable mentally handicapped, socially maladjusted, learning disabled and emotionally disturbed, if not other special educators including speech therapists and teachers of the visually and auditorially impaired, participating. Their responsibilities would not only be to become skilled behavior modifiers in the areas of school learning, but also to revise radically existing instructional materials--perhaps along the lines of those proposed in the last part of this paper.

It is further recognized that more severely handicapped children will continue to need essentially self-contained special schools and classes. Thus, the procedure outlined in this paper is not recommended for the non-adaptive educable mentally retarded, the trainable retarded, or the hearing or visually impaired--not to mention the multiply handicapped.

It is also recognized that some labels may be needed for administrative reasons (including financial support to provide the needed special services for these children with mild to moderate learning problems). If so, we need to find a broad generic label such as "school learning disorders" to include the educable mentally handicapped, emotionally disturbed, perceptually impaired, brain injured, etc. But special instructional needs will change over time for a particular child. Thus, labels, at best, would be transitory rather than permanent. The main point is that, clearly, under this system, there will be no need for us to retain a set of disability labels, medical in origin and aimed at etiology.

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To summarize this first proposal in my blueprint for change, I suggest it is up to the special educators involved, to learn diagnostic teaching and behavioral modification techniques and apply them. We must work toward prescriptive teaching. More and more, our role probably needs to change from self-contained, special class teaching to psychoeducational diagnosis, the development of programmed instructional materials, the determination of a successful instructional intervention, and the supervision of others, including teacher aids as they actually work with the child utilizing programs of instruction we have found effective. Only the best of today's special educators will be able to arise to the rigorous and demanding regimen that this proposed procedure will require. In fact, if most of today's special educators are asked to function in this proposed manner, without needing to demonstrate the skills of a teacher who is a master at prescriptive teaching, then this proposal will likely be almost as ineffective as today's self-contained special classes.

Curricular Modifications

At the heart of an effective school program for children with mild to moderate learning difficulties is certainly a master teacher--skilled at educational diagnosis, and inventive in designing and carrying out interventions to remediate the problems that exist. Too, she needs an administrative organization in the schools that will enable her to be maximally productive. Being a resource teacher in a school with flexible grouping would appear to have many advantages over her having to manage a self-contained special class of some 12 to 18 pupils who have similar psychometric, medical, or psychiatric labels, but very different educational needs. But what should she teach?

In my view, there has been too great an emphasis in special classes on practical arts and practical academics--to the exclusion of other ingredients. Thus, the second major strategy in my blueprint for change is a thorough revision in the emphasis given to what we teach. Outlined below are the beginnings of a scheme (matrix, taxonomy) which might enable us to order our business. I am not at all sure mine is the most desirable one, but at least it is a beginning, and is intended to stimulate thinking and reactions. Quay (1967) has recently devised another structure. Still others will make their appearance.

Of course, the overall scheme is but a first step in curriculum revision. Many sub-models will need to be developed for each of the major facets or topics agreed upon. And, then the real work could begin at developing and field testing specific interventions. Most teachers can do an adequate job of teaching what has been programmed out for them in basal readers, workbooks, and programs of instruction; and even make the necessary adaptations to allow for individual differences for the pupils under their tutelage. A few teachers are remarkably able in developing new materials, but relatively ineffective in teaching them. Very few teachers can both create instructional programs, and teach them

well. The analogy is that some people can play music adequately if not brilliantly; a few people can compose music; and still fewer can create important music and play it brilliantly. It seems to me that little progress is going to be made in education (including special education) until we begin identifying the teachers who are creative in developing educational interventions and freeing them from routine classroom instruction to do what they can do best. In short, a cadre of creative special educators needs to be sprung loose by State and local school systems to develop and create systematic sequences of lessons along the important dimensions of the curriculum. These people would concentrate on developing, field testing, and modifying dozens of programs of exercises for developing such specific facets of human endeavor as creative abilities, problem solving techniques, visual perceptual skills, sound blending ability, and so on. Each large school system would probably need a "curriculum development center in special education." Probably existing "Special education instructional materials centers", now located in selected colleges and universities across the Nation and supported by U.S. Office of Education funds, need to shift over to this emphasis. Clearly a National clearing house plus national coordination and cooperation are needed. The costs will be high but the gains could be great. Probably at least 5 to 15 percent of our teachers--the ones who are creative--need to be released from classroom management to test the efficacy of this approach. The sequences of exercises they develop could well revolutionize instruction, and replace existing loose, general, unbalanced curriculum guides which are essentially useless. One of the major faults of special education has been that teachers haven't known what or how to teach. These programs of exercises should help correct this problem.

But first we must establish a conceptual framework which will then need to be differentiated much further. Only then can we embark on developing sequential exercises or lessons in an organized way. As a beginning, I have attempted to classify our treatments under seven broad headings:

1. Environmental manipulations.
2. Motor development.
3. Sensory and perceptual training.
4. Cognitive and concept formation (including language development).
5. Expressive language training.
6. Connative (or personality) development.
7. Social interaction training.

1. Environmental modification. There are certain milieu manipulations under the special educator's control, or which she can influence, especially in collaboration with the school social worker. Since much of what a person is, is learned from his environment, it is an important area to which we must address ourselves. Below are the types of interventions that I see falling under this category:

1. Home placement, including foster home placement.
2. Community conditions and out-of-school activities.
3. Parent education.
4. Public education.
5. Cultural exposures.
6. School placement and exposures.

I recognize that educators are reluctant to play a major role in non-school environmental changes for children. But, for optimal pupil development, we must do what we can to see that children find themselves in an ecological system which is both supporting and simulating.

Here is the area which cannot be attacked solely by working out behavior modification materials. In addition, we must devise environmental manipulations and test their efficacy. We have made a slight beginning in measuring the effects of foster home placement. Too, we have some evidence that working with parents of the disadvantaged has pay-off. Much more human and financial effort must be invested in this area. For too long, we have assumed the handicapping condition has rested within the child, when it may have been due in greater amount to environmental factors.

2. Motor development. Some fine beginnings have been made in working out psychomotor training programs. The work of Kephart, Doman and Delacato, Oliver, Corder, Pangle, Solomon, Spicker, Lillie and others are good examples. But what is still needed are sets of sequential daily activities built around an inclusive model. This should begin with the development of body movement--including nobility, balance, hand-eye coordination, etc. Perhaps, under this category, we need to move up through physical education, arts and crafts, and the development of fine and large movements required as vocational skills. Collaboration among special and physical educators, physical and occupational therapists and others should pay off handsomely in developing programs of instruction in this area.

Clearly, any and all efforts to develop improved motor skills need to be included here, and would be applicable, at critical stages, to a variety of children with learning problems. In fact, one could argue that adequate psycho-motor skills is a first stage for later learnings of all children.

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3. Sensory and perceptual training. Much of our early special education efforts have consisted of sensory and perceptual training applied to such severe handicapping conditions as blindness, deafness, and mental deficiency. Thus, we have a good beginning at outlining programs of instruction in such areas as auditory, visual, and tactual training. What is needed now is to apply our emerging technology in working out the step-by-step sequence of activities needed for children with mild to moderate learning difficulties.

There has been a growing emphasis on visual perceptual training, pioneered by Frostig--but her work has been largely of the pencil and paper variety. Other visual perceptual programs are becoming available. But, there has been a great neglect of auditory perceptual training--an area more important for school instruction than the visual channel. Thus, much attention needs to be given to this second link in the chain of learning. Children with learning problems need to be taught systematically the perceptual processes, namely the organizing and conversion of bits of input into units which have meaning.

4. Cognitive development and concept formation. Here it seems to me, is the heart of education. Our business is to facilitate the thinking processes of children. Not only should we help them to acquire and store knowledge, but to generate and evaluate it. Thus, under this broad rubric, would come the training of intellect and academic learnings. Language development could largely be included under this caption, but it is broader including the receptive and expressive components, as well as the integrative ones. Thus, much of receptive language training might be considered under sensory and perceptual training, while expressive language will be considered as the next topic.

In terms of the training of intellect, basic psychological research by Guilford (1959), Bruner (1967) and others has provided valuable information. However, very little is yet known about the trainability of the various cognitive processes. Actually, the Thurstones (1948) have contributed the one established set of materials for training primary mental abilities. Whether we elect to outline programmed exercises in each of the 90 plus Guilford factors (or in some other categories such as associative, divergent, and convergent thinking), much work lies ahead of us in developing effective exercises for the "training of intellect."

We are seeing more and more sets of programmed materials in the "academic" areas. Most of these have been designed for average children. The most exciting examples today are in the computer-assisted instruction studies being conducted in public schools associated with Stanford University, the University of Pittsburg, and Pennsylvania State University. Our major problem is to determine how these programmed exercises need to be modified to be maximally effective for children with specific learning problems, or whether we need to develop substitute ones. Work is needed in the various classical areas of instruction including: (1) written language, (2) mathematics, (3) science, (4) social studies, (5) music,

(6) art, and so on. However, I would hope that regular teachers would handle much of the instruction in science and social studies, while specialists would instruct in such areas as music and the fine arts. This would free special educators to focus on better ways of teaching the basic 3 R's -- especially written language.

In summary, a major fault of our present courses of study is failure to focus on the third link in the chain of learning -- namely teaching our children systematically in the areas of cognitive development and concept forming so that they will be better generic thinkers. For example, a major goal of our school program should be to increase the intellectual functioning (raise the IQ scores) of children we are now classifying as cultural-familial retardates. In fact, for such children, I believe about 25 percent of the school day should be devoted to the development of oral language and verbal intelligence skills--including productive thinking. Yet not one curriculum guide I have seen to date has a major unit on cognitive development--a sad state of affairs indeed.

(Another area of major concern to us, which does not fall neatly into one of my seven major areas is vocational training, including occupational information, and specific job training. Refinements of this proposed schema needs to give adequate attention to these aspects of the curriculum which become increasingly important for pupils as they enter their teens.)

5. Expressive language training. Vocal expression has received much attention, especially from speech correctionists and teachers of the deaf. Perhaps corrective techniques for specific speech problems are more advanced than in any other area. But essentially no carefully-controlled research has been done on the efficacy of these programs. Speech correctionists have tended to be clinicians, and not applied behavioral scientists. They often create the details of their corrective exercises while working with their clients in a one-to-one relationship. Thus, the programs have often been intuitive. Too, public school speech therapists have spread themselves thin, usually working with about 100 children. Furthermore, they have been rather convinced that only they could be effective in providing their therapeutic exercises.

But remarkable changes have occurred in the thinking of speech therapists of late. They are recognizing that total programs of oral language development go far beyond correcting articulation defects -- their previous pre-occupation in the public schools. Too, they are recognizing they may be more productive by concentrating on developing hand-tailored programs of therapy for a small case load of more severe speech handicaps -- leaving the milder ones to time and the teacher.

They could be of great service if they would develop and field test systematic exercises to improve (1) articulation, (2) pitch, (3) loudness, (4) quality, (5) duration, and other speech disorders

of a mild to moderate nature. These exercises need to be programmed to the point where teachers, technicians, and perhaps teacher-aids can use them. Thus, it is recommended that a cadre of speech therapists who are creative be freed up from routine therapy to work with special educators and others in developing exercises to remediate a variety of specific speech disorders.

6. Connative (or personality) development. Here lies an emerging area that requires our careful attention. As behaviorists, as mentioned earlier, we must accept the position that we are largely products of our environment. This applies to all aspects of human thought including: (1) our attitudes, (2) our beliefs, and (3) our mores. Research-oriented clinical psychologists are providing useful information on motivation and personality development. Before long we will see elements of research at shaping insights into self, the effects of others on self, and one's effects on others. It is not too early for teams of clinical (school) psychologists, psychiatric (school) social workers, teachers, and others to begin working up programs of instruction in this complex field.

7. Social interaction training. Again we have an emerging area which overlaps some of those already presented--especially connative development. Special educators have long recognized that the ability of a handicapped individual to succeed in society depends, in large measure, on his ability to get along with his fellowman. But we have done little to develop his social living skills. Here is a complex area whose importance is paramount. I believe systematic exercises can be developed to facilitate development in this area of human endeavor.

To summarize this second proposal in my blueprint for special education reform, I have attempted to order (and put in a different perspective and emphasis) the educational treatments and manipulations we need. Generally, I think we would agree that all children -- normal, disabled, and gifted -- need to move through all of these interventions, on their way to maturity and effective living. In many cases, children progress through the developmental sequences within these categories rather informally. As I have already indicated, this does not necessarily happen with children who have mild to moderate learning disorders. We cannot look to general education to develop even all of the standard syllabi in all of the areas. Furthermore, we have responsibility for the special modifications that certain of our children will need. The task is huge. We can neither afford to neglect it, nor to duplicate our efforts. We must find some way of parcelling the work out and getting it done. We need to recognize that our first series of systematic exercises will only be first approximations. Hopefully -- for as long as one can see into the future -- a major role of creative educators will be to extend and to improve on these. Even as we

approach greater perfection in our programs of exercises, we will still need to tailor these on the job, as we work with each individual child who has a specific learning problem. At best, they can only serve as guidelines. It is not a moment too soon to begin assembling forces of creative people to invent, improvise, and develop the programs for the vast majority of special educators who are ordinary but adequate in teaching when they know what to teach. We in special education are not too different from other professions -- including physicians who do an adequate job of treating medical disorders after effective means have been worked out by the rare creative genius.

Concluding Comment

Here then is my blueprint for change for much of special education as we find it today in local school districts. We cannot afford to continue to operate self-contained special classes for the mild and moderately handicapped -- 60 to 80 per cent of whom are from urban and rural slums. On both civil rights and educational grounds, in my view, past practices can no longer be tolerated. We can no longer be a party to a practice whose main value has been to take pressure off the rest of the school through taking problem children off their hands. We have been all too ready to respond to the school's demands. For example, we have pushed the upper IQ limit on special classes for the educable mentally retarded gradually upward from 70, to 75, to 80, and even to 85. This requires us to care for the bottom 17 per cent of the school population -- if we were asked to take the docile as well as the problem pupils. Of course, this approaches the ridiculous. The prices for our past practices have been too high for handicapped children. Our children are being stigmatized with disability labels. Our children are not getting the needed stimulation and challenge provided by being with more able students. Our children are not being expected to achieve at a high enough level (perhaps they should be all taught as though they had IQ scores above 120). I feel so strongly about the wrong we are perpetuating that, knowing what I do, if I were a blue-collar worker from the slums, and especially if I were an Afro- or Mexican-American (or of some other non-Anglo-Saxon middle class background), and the school wanted to label my child educable mentally retarded (or some such disability label) and place him in a self-contained special class I would go to court to prevent the schools from doing so. I say this because I want you to know how deeply and sincerely I feel that the child with a mild to moderate handicap has been exploited. I feel this -- as a special educator, and as a citizen concerned about equal rights and equal education opportunity for all children.

As guidelines for change, I have proposed two rather dramatic new directions for special education with which I could live as a special educator, as a parent, and as a citizen. I hope I have presented evidence in support of my contention that much of special education for the mild and moderately handicapped (as we have known it in past decades) is in

need of change. While I recognize that the structure of most, if not all, school programs lead toward self-perpetuating, still I believe that we have within ourselves forces for change. I realize I have raised questions with implications for ethics and professional integrity. I realize that teachers, and state and local directors and supervisors of special education, have much at stake in terms of their jobs, their security, and their programs which they have built up over the years. But can we keep our self-respect and continue to increase the numbers of these self-contained special classes which are of questionable value for the children they are intended to serve? As Ray Graham said in his last article in 1960:

We can look at our accomplishments and be proud of the progress we have made; but satisfaction with the past does not assure progress in the future. New developments, ideas, and facts may show us that our past practices have become out-moded. A growing child cannot remain static -- he either grows or dies. We cannot become satisfied with a job one-third done. We have a long way to go before we can rest assured that the desires of the parents and the educational needs of handicapped children are being fulfilled.

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HANDICAPPED CHILDREN IN MODERN SOCIETY

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It is now generally agreed that the great majority of children who are classified as "educable mentally retarded" are in this condition because of environmental handicap rather than biological or genetic handicap. To state it more broadly, most children with a measured IQ between 60 and 90 are in this group because they are socially disadvantaged.

There certainly is an inherited limit or potential for a number of mental abilities, and this biological limit varies from one person to another. But we cannot measure it, and we are sure that no one reaches his biological limit of intelligence. The level he reaches depends more upon his experience than upon his inheritance. Thus most of what we see as mental retardation is more properly called pseudo-retardation than innate retardation, and more properly called educational retardation than mental retardation.

A very small group of children do suffer from an inherited biological mental handicap. Many of them can be diagnosed by medical means. Some of them have mongoloid physical characteristics. Some of them have physiological defects. Perhaps there are inherited forms of mental deficiency which cannot be diagnosed yet. But this group with a biological mental handicap is probably no more than twenty-five percent of children with measured IQ below 75. The President's Committee on Mental Retardation says that 75 percent of mental retardation has socioenvironmental causes.

One important piece of evidence pointing to the massive extent of pseudo-retardation in our society is the fact that over 80 percent of the children who are classified as "educable mentally retarded" come from poor families. Eighty percent of the educable mentally retarded come from the twenty percent of families with the

lowest incomes. These are crude estimates, but they are substantiated by a number of studies of urban and rural school populations.

We know, now, that poverty is not biologically inherited. That is, children born in poor families do not inherit biological inferiority much more than children born in well-to-do families. Perhaps there is a slight tendency for poor people to be biologically and genetically inferior to people of average or high incomes. But the geneticists have determined that most favorable mental and physical characteristics are inherited in such a complex manner that it would take many generations of strict selective mating for mental and physical superiority to produce markedly superior or inferior human groups, and human mating has not been selective along these lines.

If the propositions stated in the preceding paragraphs are true, it should be possible to specify the socio-cultural characteristics of poverty that produce mental retardation. A number of recent researches have done this. *

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~~The following excerpt is from a test being~~

They point to the following characteristics which are closely related in the statistical sense to poverty. These are commonly but not universally associated with low income.

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1. A restricted language used in the home.
2. Low level of education of parents and general lack of reading habits, reading skills, and reading materials in the possession of the parents.
3. Parents do not set an example of achievement through education.
4. Parents do not hold high educational aspirations for the children.
5. Residential neighborhood is mainly occupied by people who are like their parents in socioeconomic characteristics.
6. Poor health and inadequate health services reduce school attendance and reduce the vigor of school children.

The following excerpt from a West Virginia study illustrates the operation of the factors listed above. This comes from a report made by a team of psychologists who visited Head Start classes in seven counties of West Virginia and observed and tested children in the summer of 1966.*

*

M. Mitchell-Bateman, Robert D. Kerns, and Louise B. Gerrard, Head Start: West Virginia, Summer, 1966. A Seven-County Overview. West Virginia State Department of Mental Health, Charleston, W. Va.

"Why so afraid?"

"Some are frightened by school and by what their parents have told them about school. One six-year old girl went with the examiner to the room where the test was being given, but refused to say a word. The examiner saw the child's eyes following her as she laid out the crayons and colored cars, and one small hand darted out to touch the bright red and black checkers. But the girl kept her lips pursed and did not respond when the examiner spoke to her. After a considerable length of time the examiner decided it was fruitless to continue; she said good-naturedly that she hoped the child would decide to come in later to complete the test, and took her back to her room.

"The teacher said the child had never spoken in class, and reminding herself that the child's eleven-year old aunt was a student in a fourth-grade remedial class, sent the examiner upstairs to meet the aunt. The eleven-year old was very shy, but under the gentle questioning of the examiner revealed that the child lived in a three-room house with fifteen brothers, sisters and cousins, a sick mother, and the young aunt. Ever since she could remember, the mother would tell the children when they became noisy: 'You just wait till you get to school. The teacher will whup you if you open your mouth! You just wait!'"

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Where Are Handicapped Children Located?

So much attention has been given recently to slow learners in our big-city slums and ghettos that we tend to think of the problem as a big-city problem. But this is not the case. Socially disadvantaged children abound wherever poverty abounds. Out of the poorest quarter of our population, at least three-fifths, or 15 percent of the total age group, are seriously retarded in educational achievement by the time they reach the age of 8 or 10. (Poverty is not equivalent to educational retardation, since many children of poor families do well in school. But the chance of educational retardation is high among children from poor families.)

At least half of our poor children come from small cities, small towns, and the open country. 28 percent of poor children live in the open country or in towns under 2,500 in population. They grow up in the states of the Great Plains, as well as in the southern states and the Appalachian and Ozark states.

The incidence of poverty is especially high among Negro children (64 percent), and among certain smaller ethnic groups. The Spanish-Americans of the five Southwestern states have approximately 35 percent "poor" people, and the American Indians have approximately 60 percent "poor." The Indian estimate is very crude, since most Indian children live in isolated rural areas, where the meaning of "poverty" is quite different from what it is for the few Indians who live in cities.

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Practical Procedures for Environmental Improvement

It is obvious that the attack on mental and educational retardation must take the form of improving the social environment for disadvantaged children. This may be done in a variety of successful ways, and some of them are illustrated in the following descriptions of research projects.

The practical procedures may be placed in two categories. The first category applies to pre-school and primary grade level children. It consists essentially of educational procedures to raise the measured IQ from below 80 to the average range. The second category applies to children of elementary and secondary schools who have been diagnosed as "mentally handicapped," and consists of formal schooling aimed at improving their vocational and social adjustment without expecting any change in IQ.

Programs for Pre-School Children

A cluster of studies and experiments made at the State University of Iowa have built up evidence over the past 30 years that the measured IQ can be changed by certain kinds of educational programs.

The most striking of the Iowa studies has been reported recently by Harold Skeels. In the early 1930s a group of 25 children ranging from about 7 months to about 2 years of age were diagnosed as feeble-minded on the basis of intelligence tests. They were all wards of the state, in an orphanage. More or less by accident one group of 13 children were given a great deal of personal attention by girls and women who were inmates of the state institution for the feeble-minded, while the other group of 12 were given the customary bodily care by a nurse, but not exposed to other stimulation, since it was assumed that they were feeble-minded and could not develop normally.

Then it was discovered after about a year that the first group (hereafter called the experimental group) had gained substantially in IQ, while the second (control) group had lost in IQ. From this time on, the children in the

experimental group were given nursery school experience and treated as though they could learn normally. Eventually, 11 of the 13 were placed in adoptive homes as normal children. The contrast or control group remained in the state institution and became a typical feeble-minded group with the exception of one boy whose IQ rose, and who was eventually placed in an adoptive family, graduated from high school, and became a skilled craftsman.

A follow-up study made after all the people in the two groups were in their 30s showed a striking contrast between the groups.

All 13 persons in the experimental group are now self-supporting, including two who are of border-line intelligence but are living with their mothers and earning money at simple jobs. Eleven of the 13 are married, and 9 of them have children, whose average IQ is now well above 100. Five of the 13 went to college, and one has done graduate work. The median educational level of the experimental group is 12 years, or high school graduation.

Of the contrast or control group of 12, one died in adolescence as an inmate of a state institution, and 4 are still wards of state institutions. Only two of the remaining seven are married. Two of the four girls who were released from the state institution were sterilized to prevent their having children. The median school grade completed by the control group was third grade. Half of the persons in this group are unemployed, and the others are employed as unskilled workers with the exception of the young man mentioned above.

One girl in the experimental group who initially had an IQ of 35 has subsequently graduated from high school and taken one semester of work at a college. She is married and has two boys. These boys have been given intelligence tests and have achieved IQ scores of 128 and 107.

The latest of the Iowa studies was reported in 1967, by Kugel and Parsons, shortly after it was completed. From 1957 to 1962, 16 families were selected

as poor families who were conferring social disadvantage on the children, and with one or both parents mentally subnormal on the basis of a Binet IQ below 84.

Sixteen children, one from each family, and between 3 and 6 years of age, were subjects of special study. The Binet IQs of 14 of these children ranged from 55 to 84, the other two being in the normal range.

The children received special attention over a three-year period in an experimental school, and the mothers were given special counselling by a home economist and by a social worker.

A total of 35 children from these families attended the experimental school for at least a year, and 32 of them showed an increase in IQ. Those aged 2-4 increased in IQ an average of 19 points, while those aged 5-7 increased an average of 11 points.

Samuel Kirk conducted a somewhat similar study in the 1950s. He brought into an experimental school a number of retarded children 3 to 6 years of age with IQs between 45 and 80. Another similar group were observed but not given instruction. Seventy percent of the children in the experimental nursery school showed gains in IQ from 10 to 30 points, and most of them retained these gains after they entered elementary school.

A contemporary experimental program is being carried on by Bereiter and Engelmann at the University of Illinois, and is described in their book on Teaching Disadvantaged Children in the Pre-school. They argue that most disadvantaged children are far behind children from average homes in their language development and their ability to reason.

Consequently Bereiter and Engelmann call for "a new kind of pre-school for disadvantaged children," which differs substantially from the typical nursery school that has been developed to meet the needs of middle-class children. This school for disadvantaged children, they say, should concentrate on learning, learning

vocabulary, learning to put words together in sentences, learning to count, learning simple arithmetic. The objectives should be highly specific, and the children should be rewarded immediately for each successful act of learning.

They are skeptical of the value of the "enrichment" practices which are common in Head Start classes. They doubt the usefulness of many of the trips to parks, zoos, etc., and of the new toys which disadvantaged children are given. They argue that most forms of enrichment are too leisurely and inefficient as learning experiences to be justified for disadvantaged children, who are already far behind privileged children in what they have learned, and who need instruction that is aimed to help them catch up with privileged children.

There are only two ways to increase the rate of learning of disadvantaged children: by selecting experiences that produce more learning and by compressing more of these kinds of experience into the time that is available. This leads to a high-pressure instructional program that horrifies some conventional nursery school teachers, who call it a "pressure cooker for immature minds." But Bereiter and Engelmann give evidence to show that the children in their school enjoy this kind of instruction, and that it definitely raises their measured IQ substantially.

A More Drastic Alternative. In the coming months and years we shall probably hear a good deal of discussion of a more intensive program than anything yet done in experimental pre-schools for disadvantaged children. This will take the form of long day schools or even residential schools for disadvantaged children starting at the age of two or three.

The argument for this will be that the disadvantaged child does not get enough learning experience in a 2 or 3 hour session five days a week. It would be better for him if he spent most of this working hours in the kind of educative environment that a full day school or a residential school could provide.

The objections to this kind of program are two. One is that the child would

get less attention from his mother and his father, if the latter is present in the home. The other is that it would cost a great deal of money. The second argument will be countered with the proposition that families who are living on public welfare funds would need less support if their young children were cared for in this way. A mother living alone with two or three young children might be able to take a job while her children are cared for in the all-day school. Some of the mothers might be employed as helpers in the pre-school institutions, and thus learn to do a better job with their own children.

It may be that a large part of the money the government puts into Aid for Dependent Children could be used to better advantage both for the children and for their parents by being used to pay for a vastly improved system of care and teaching of disadvantaged children.

School Programs for Intermediate and High School Grades

The emphasis that has been placed on pre-school instruction for disadvantaged children should not take away from our interest and concern with slow-learning children in the intermediate and high school grades. We shall have these boys and girls with us for a long time, though we may reasonably hope that their numbers will decrease.

There has been a rapid and continuing growth of special classes for the mentally retarded, taught by teachers with special training for this work. Dunn estimates that this constitutes more than 80 percent of special education for the mentally retarded, and includes well over 600,000 children and adolescents.

Most of the "educable mentally retarded" are diagnosed after they are 8 or 9 years old and have been in regular school classes for two or three years, where they have difficulty with academic work, though their physical condition and appearance are about average. The special classes seek a balance among practical

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arts, a slow and systematic program of academics, and a variety of social and occupational adjustment activities.

There is considerable doubt among the specialists in special education concerning the effectiveness of special classes for the retarded. Dunn, in particular, has concluded that "special classes, in their present form, can no longer be justified." However, retardates in the sheltered environment of the special class appear to be superior in personal and social adjustment to those left in the regular grades.

To a considerable extent, the skepticism now so often expressed concerning the value of special classes for the mentally handicapped arises from the growing conviction that the great majority of these children are not innately inferior, and that they have the potential for normal or average achievement in school. This suggests to some people that these children should be kept in regular classes and given such remedial training as is necessary to bring them up to average achievement. But remedial training has been relatively unsuccessful with such children, when it is started after the age of 8 or 9.

Thus we do not have anywhere an example of remedial education in the middle grades and the high school which effectively raises the rate of learning of a substantial group of low IQ children.

On the other hand, we do have evidence that special education classes, when taught by well-trained teachers under good supervision, have two positive results. First, the children become more self-confident, and work more successfully to learn at their present IQ level. Second, the adolescents in this group get a more realistic and effective preparation for work, and succeed better in their employment as soon as they drop out of school and enter the adult work role.

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Conclusions

Perhaps it is fair to conclude that we have a good chance of reducing the numbers of low IQ children by more effective work with them in the pre-school and early primary school years. Perhaps we should count on reducing this group to one-half its present size within the next five years, with the help of federal government funds and the best practice now available.

At the same time, we can be sure that a substantial group of children will reach the age of 8 or 9 with low IQs, and that this group will be large enough to employ all the present teachers and administrators of programs for the mentally retarded, and their replacements for the years immediately ahead.

In other words, special education for the mentally retarded is needed as much as ever, even though much of the retardation is due to socio-cultural factors rather than innate genetic factors.

For pre-school ages, we should probably treat most retarded children with the hypothesis that their retardation is due to social disadvantage, and we should aim to raise their learning ability to average levels.

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