DOCUMENT RESUME

ED 056 432 EC 040 378

AUTHOR	Reynolds, Maynard C., Ed.; Davis, Malcolm D., Ed.
TITLE	Exceptional Children in Regular Classrooms.
INSTITUTION	Minnesota Univ., Minneapolis. Dept. of Special Education.
SPONS AGENCY	Office of Education (DHEW), Washington, D.C. Bureau of Educational Personnel Development.
PUB DATE	71
NOTE	133p.
AVAILABLE FROM	Dept. of Audio-Visual Extension, University of Minnesota, 2037 University Avenue, S.E., Minneapolis, Minnesota 55455 ($1.95)
EDRS PRICE	MF-$0.65 HC-$6.58
DESCRIPTORS	Administrative Change; *Exceptional Child Education; *Handicapped Children; *Heterogeneous Grouping; *Teacher Education; *Teacher Qualifications

ABSTRACT

Presented are 16 brief essays concerned with strategies of heterogeneous grouping, administrative change, teacher qualifications, and teacher education for improving regular educational services for handicapped children. The essays were written to widen perspectives on the means by which the Special Education Training Branch of the Bureau for Educational Personnel Development (BEPD) might accomplish its mission. Authors address themselves to the following issues: relationship of regular and special education; integration of regular and special education; effects of integration of regular and special education; administrative change needed for integrating regular and special education; qualifications of regular teachers in teaching exceptional children; additional training for regular teachers; supportive help for regular teachers; school structure; roles of school psychologists and other personnel workers in an integrated system; training programs needed by regular teachers that can be provided by BEPD; and existing programs of integrated regular and special education. (CB)

Exceptional children

Introduction

Editors:
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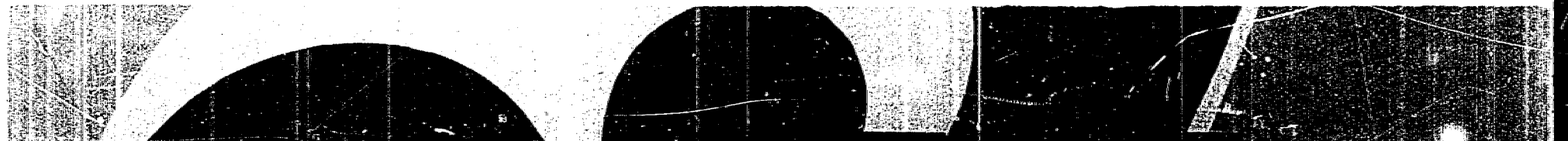

EXCEPTIONAL CHILDREN IN REGULAR CLASSROOMS

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A publication of the Leadership Training Institute/Special Education, sponsored by the Bureau for Educational Personnel Development, U.S. Office of Education.

ACKNOWLEDGEMENT:

The project presented or reported herein was performed pursuant to Grant OEG-0-9-336005(725) from the Bureau for Educational Personnel Development, U.S. Office of Education, Department of Health, Education and Welfare. The opinions expressed herein do not necessarily reflect the position or policy of the U.S. Office of Education and no official endorsement by the U.S. Office of Education should be inferred.

This publication is distributed by the Department of Audio-Visual Extension (University of Minnesota), 2037 University Ave. S.E., Minneapolis, Minn. 55455. Price, $1.95.

FOREWORD

In publishing this book, the Special Education Leadership Training Institute does more than present a series of thoughtful and stimulating approaches to improving the competencies of teachers who work with handicapped children in regular classrooms. It illustrates in microcosm the special commitment of the Bureau of Educational Personnel Development. That commitment is to improve and expand educational opportunities of young people handicapped in a variety of ways—by physical or mental impediments, by poverty, or by alienation from the predominant culture.

The papers presented here also reflect the directions in which we are moving. Our efforts are directed toward two goals: making the colleges and universities more responsive to the needs of teachers and other personnel who work with the handicapped, and making the schools more responsive to the requirements of handicapped students. We cannot be successful in the second goal unless we are successful in the first.

What the schools most need are personnel who can deal with young people as human beings, who have a positive attitude toward children who are different, and who can work with youngsters in the variety of ways their individual differences require. This is true of all educational personnel, but there is a special urgency that personnel dealing with the handicapped exhibit these qualities.

The Bureau of Education for the Handicapped is responsible for improving education services available to students who attend special schools and special classes. But most handicapped children receive all or part of their education in regular classrooms. Personnel equipped to work with them effectively are in short supply. The Special Education Training Branch of the Bureau of Educational Personnel Development and its Leadership Training Institute have a mandate to initiate steps to correct this situation. This book makes a unique contribution toward this end.

Grateful acknowledgment is extended to the contributing authors along with a sincere appreciation for their willingness to assist the Bureau of Educational Personnel Development in meeting its objectives as they relate to handicapped children. A special thanks is due to Dr. Maynard C. Reynolds, Director, Special Education Leadership Training Institute, and to Dr. Malcolm D. Davis, Chief, Special Education Training Branch, Bureau of Educational Personnel Development, for helping to make this publication possible.

Don Davies
Acting Deputy Commissioner
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INTRODUCTION

The Bureau for Educational Personnel Development (BEPD) took a pioneer step in 1969 by forming a Leadership Training Institute (LTI) in each of its 12 major program areas. Each LTI is responsible for providing technical assistance, training, and advice to the directors and other staff of each project in its domain. In 1970-71, for example, the LTI in the field of special education worked closely with the staffs of 43 projects spread from Maine to California. Site visits, which are friendly and advocate-oriented, are made at least annually to each project.

LTIs also serve in an advisory role to BEPD staff, working on such problems as application procedures, priority areas for new programs, and evaluation and coordination with other federal programs. Close cooperation with BEPD staff is maintained so that the work of the LTI and BEPD will be coordinated and serve effectively to enhance the quality of all projects. The LTI has no part in deciding which specific projects are funded by BEPD; its role is that of "advocate" for each project that has been given support.

The special education LTI is staffed at the University of Minnesota by two part-time and one full-time professionals plus secretarial help. A panel of consultants consisting of professionals, students, and community representatives is the basic policy group for the LTI and participates in all phases of its operations.

One of the concerns of the LTI is to help provide a context within which projects of outstanding quality may be recruited for the future. The special education LTI has given high priority to three areas of work as it points to the future: psychology in the schools* early childhood education, and accommodation of handicapped children in regular school programs. The present publication represents an attempt to help stimulate thinking on the last of the three priority topics: how to manage handicapped children in regular classes. Early in its history, BEPD agreed with its sister agency, the Bureau for Education of the Handicapped (BEH), that the main target of training efforts by BEPD would be regular school personnel who could create total school systems that would be more accommodative to the needs of handicapped children.

The essays making up this publication are concerned with strategies for improving regular educational services for handicapped children. They were written to help enlarge and sharpen perspecitves on how the Special Education Training Branch of BEPD might accomplish its mission.

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*M. C. Reynolds. *Proceedings of the Conference, Psychology and the process of schooling in the next decade: Alternative conceptions.* Minneapolis, Minn.: Distributed by Dept. of Audio-Visual Extension, University of Minnesota, 1971.

Specifically, the language used to persuade potential authors—most of them leaders in the field of special education—to participate in the project was as follows:

> The Bureau of Educational Personnel Development (BEPD) of the U.S. Office of Education now supports a variety of training programs in the field of Special Education. By agreement with the Bureau of Education for the Handicapped, BEPD supports programs for the training of regular school personnel (regular teachers, counselors, school psychologists, administrators, aides, etc.) leaving specialist teacher training supports to BEH. Obviously the BEPD mission is not only to train certain people, but through training activities to influence the ways schools function and are organized to serve children with special needs. The general guideline is that so-called "mainstream" educational programs ought to be made as accommodative as possible to children who are handicapped.
>
> A major question faced by BEPD is: What are the promising strategies by which one could, through training, influence regular schools to be more effective in serving handicapped children? Who should be trained? At what levels? In what ways? Should the emphasis be on school administrators? More support personnel for regular teachers? On administrative reorganization? On general application of principles relating to individual differences? On in-service education? Sensitivity training? Or what?
>
> I am asking you to prepare a brief statement reflecting your ideas about training of regular school personnel and changing regular school procedures or organization so that handicapped children may be better served. What we would like is a relatively brief statement outlining one, or perhaps several, approaches or strategies which you think ought to be considered. You may wish to outline a general plan, but hopefully, it will relate to the training support programs now possible through BEPD.

In response to the call, 14 special educators contributed papers that together comprise a multifaceted attack on the problems of including children with a variety of physical, emotional, and intellectual challenges in the mainstream of regular education. None of the authors denigrates the problems involved and none offers easy solutions. As much concern is voiced for the overworked regular classroom teacher as for the child shunted into a special education class.

The authors have addressed themselves to the questions that are uppermost in the minds of all educators and parents when the subject of accommodating exceptional children in the regular classroom is raised.

What is the relation of regular and special education?

How can the two systems be integrated?

Why should exceptional children be accommodated in the regular classroom?

Will the education of all children suffer or benefit from the accommodation?

Are school administrators ready to lead the way in creating a more fully integrated situation for the handicapped?

How far can regular teachers go in teaching exceptional children?

Will regular teachers need additional training?

Will regular teachers need additional help and what kind?

Will the structure of schools need changing?

Are school psychologists and other personnel workers prepared for their roles in a changing pattern of service?

What kinds of training programs should BEPD provide to help regular classroom personnel teach exceptional children?

Have any programs of accommodation been tried and how do they work?

The answer to the last question is "yes" and the descriptions of two such programs are contained in the articles by Drs. Haring and Hewett.

Because the accommodation of exceptional children in regular classrooms concerns all educators and not just those in special education, the LTI has designed the publication of this volume to reach as wide an audience as possible. In a joint paper, Dr. Malcolm D. Davis of BEPD and Dr. Kenneth E. Wyatt of BEH outline the concern of the Office of Education with the problems of educating handicapped children and of training teachers in and out of regular classrooms to provide such education. Dr. Wilton Anderson of the Career Opportunities and Urban/Rural Branch, Division of School Programs, BEPD, has also contributed a paper in which he takes a look at the development of the philosophy of special education in the United States and suggests what can be done to eliminate the inequities of special education for disadvantaged students through the BEPD and its Career Opportunities Programs.

In collecting these papers, first for the review and use by the Special Education Training Branch of BEPD, LTI, and BEPD-Special Education project directors and staff, and now for what is hoped will be a widespread audience of educators and other persons concerned with equal opportunities in education for all children, we would like to acknowledge gratefully the contributions and cooperation of the authors, and to express our deep appreciation to them for their willingness to help sharpen the thinking of those of us who are concerned with improving educational services for handicapped children.

Mrs. Sylvia W. Rosen was the technical editor.

September 1971

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Handicapped Teachers Or Teachers Of The Handicapped?

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Bureau of Educational Personnel Development
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and

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Bureau of Education for the Handicapped
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Recently, the question of whether teacher-training programs are doing an adequate job of preparing teachers to meet the educational needs of handicapped children has been raised more and more frequently. Are we, in fact, handicapping both regular and special teachers by failing to provide regular educators with even the basic understandings and skills required to deal with handicapped children, thus placing a greater and unnecessary burden on special educators?

In response to this question the Bureau of Educational Personnel Development and the Bureau of Education for the Handicapped are cooperating to explore possible alternative solutions to the problem.

The Bureau of Educational Personnel Development, established to administer the Education Professions Development Act, designated 11 priority areas of which the Special Education Training Program is one. The training of regular educational personnel to deal effectively with handicapped children is seen as a national priority in education today because the majority of the nation's handicapped children and youth now, as in the past, are educated in regular classrooms by regular teachers. Further, educational personnel with special training in and competencies for working with the handicapped are in short supply and, in all probability, will continue to be so. Therefore, the Special Education Training Program directs itself to the needs of pupils who are enrolled in regular classrooms but who have special educational requirements.

The Special Education Training Program

The objective of the program is to encourage the training and retraining of regular classroom teachers and other educational personnel to enable them to be more effective in meeting the learning needs of all children. The program supports training projects designed to provide these educators with the insights and skills they need to work effectively with a broad range of children and youth, including handicapped children, within the regular school environment.

The basic premise of the training program of the Bureau of Educational Personnel Development is that while children with extreme handicaps require special and unusual attention, the universal principles of learning apply to all; learning problems of the handicapped differ from learning problems of other pupils only in degree, and as they are conditioned by attending circumstances.

Deviancies among children and youth are not necessarily educational problems but they are often the source of problems. Properly interpreted, they can alert the educator to educational problems, incipient or manifest, and yield an analysis that would point to effective educational procedures. Unfortunately, too many teachers lack the insight and skill or incentive to interpret such deviancies and to work effectively with handicapped pupils. For example, many regular teachers disavow any responsibility for coping with disruptive behavior relating to or resulting from handicaps. The growing concern about the kind of competencies that can be expected of regular teachers or, more generally, regular educators, who are responsible for a broad range of children, including the handicapped and potentially handicapped, makes it imperative to reexamine the role and training of the regular teacher, and has led to the need for new approaches or models in training.

Our whole system of public education is predicated on the idea that education is in itself a deterrent to social problems and tends to eliminate social ills. This idea is particularly true in our view of the handicapped who, even more than normal children, require an adequate education in order to cope with their basic social and economic functions.

The present impact of special education programs can be increased by training a greater proportion of regular classroom teachers to ameliorate handicapping conditions as well as to equip the handicapped child to maximize his assets and minimize his liabilities. The program, therefore, funds training projects that make it possible for regular educational personnel to work successfully with pupils with a broad range of handicapping conditions who are unable to perform at their highest potential in the regular school setting as it is now constituted. More specifically, the program is concerned with training the following four basic types of personnel:

1. Leadership personnel, such as trainers of teachers, school administrators, and supervisors.
2. Regular classroom teachers and teachers of basic subject areas.
3. Support personnel, such as counselors, psychologists, specialists in educational technology, and others, who are or will be responsible for educating the handicapped in the regular school setting.
4. Aides, teaching assistants, and others in career ladder programs

to assist the regular classroom teachers, and/or aides to assist teachers in special education classes.

It is sometimes possible to lose sight of the fact that all of those engaged in the debate are primarily interested in achieving the same goal: to provide the best possible educational services to the greatest number of handicapped children in order to maximize their opportunities to lead as full and as satisfying lives as their capabilities will permit. All conscientious professionals must recognize that serious deficiencies exist in our current special educational programs, just as they do throughout our entire educational system. One can find many instances of chhildren in special classes who might better have been integrated into regular class programs. At the same time, there are still handicapped children who have been denied any educational opportunities, through exclusion, by those responsible for public school programs, and handicapped children who have been maintained in regular school programs when they may have benefited from an opportunity to experience a more individualized and specialized educational setting with easier access to supplementary services.

Adaptations of teachers to the needs of handicapped children

Special education, like regular education, must be able to adapt to the changing needs of the handicapped population as well as to the changing needs of our total society. It must be willing and eager to grasp the opportunities presented by improved quality of education, expanded community resources, advances in scientific technology, and increases in ancillary services.

A graphic example that can be used for illustration purposes is that presented by programs dealing with orthopedically-handicapped children. Medical advances over the years have virtually eliminated poliomyelitis, osteomyelitis, and bone tuberculosis, which, together, constituted the major causes of crippling in school-aged children. Most commonly seen now are children with genetic or hereditary abnormalities, such as cerebral palsy, spina bifida, and muscular dystrophy. Too, children with multiple handicapping conditions are much more in evidence. At the same time, we are also seeing an increased acceptance of the philosophy that such children should be identified earlier; provided with the necessary therapeutic, social, and educational experiences as soon as is practical; and introduced into the mainstream of regular education whenever it is feasible to do so. To accomplish these objectives, it becomes apparent that there is a need for better trained, more highly skilled special teachers; aides or teacher assistants; and supportive personnel, such as school psychologists and social workers, who are knowledgeable in dealing with the handicapped. There is also a need for better prepared regular classroom teachers to ease the transition from special to regular program-

ming. Training projects must be sufficiently flexible to respond to the[illegible]anging needs.

The assessment report of the Education Professions Development Act, entitled *The Education Professions, 1968,* points out that the overall supply of teachers available to schools in the United States is now sufficient to meet the demands in all but a few specific fields. The implications are that teachers trained in surplus areas may begin to prepare themselves to work in areas of shortage, such as working with handicapped children. In addition, competition for positions in surplus fields should lead to an improvement in the quality of personnel who serve education, thus increasing the possibility that they will be ready and able to accept responsibility for minimally and perhaps moderately handicapped children in the regular program. However, it is not sufficient that training projects exist to retrain educational personnel already in the field. More importantly, the institutions that are preparing regular teachers and all other educational personnel must modify their present curricula so that those whom they are training will become immediately cognizant and capable of dealing with handicapped students in the regular classroom. A sign of encouragement is that newly developing organizational patterns and advances in educational technology give promise of providing a better "goodness of fit" of handicapped children in regular programs.

The fact remains, however, that there will continue to be children who will require intensive and extensive services of special educators and related specialized personnel, at least at some point in their school careers. The blind, deaf, severely physically handicapped (i.e., cerebral palsied), seriously emotionally disturbed, and the trainable mentally retarded will undoubtedly continue to require highly specialized educational services in the foreseeable future. There will also continue to be a demand for personnel with extensive training in special education to provide support and consultation to regular educational personnel, as well as to provide direct services to children as crisis teachers, resource teachers, itinerant teachers, and special class teachers.

The relation of special and regular education

It is clear that a symbiotic relation presently exists between the realms of special and regular education. Symbiosis, as defined by Webster's dictionary, is the living together of two dissimilar organisms in a close association or union that is mutually beneficial. In many ways, the term exemplifies particularly well the relation that has developed between the Bureau of Education for the Handicapped and the Bureau of Educational Personnel Development.

The Bureau of Education for the Handicapped recognizes that programs of greatest advantage to exceptional children require the

teacher aides and ancillary personnel now being trained through support provided by the Bureau of Educational Personnel Development. The ultimate welfare of handicapped children is also dependent upon regular classroom teachers and administrators who have become sophisticated about the needs of these children through the kind of training funded by the Bureau of Educational Personnel Development.

With better informed personnel in the regular program, it is reasonable to expect that more intelligent referral of handicapped children will be made. Such referrals, in turn, will avoid the unnecessary labeling of exceptional children and will keep special class enrollments to a more manageable level. An additional benefit of improved special education training for regular educators is the increased facility it develops for easing the transition from special to regular programs of handicapped children who are no longer in need of a highly specialized educational environment.

In like manner, the objectives of those programs of greatest interest to the Bureau of Educational Personnel Development are best served when specialists are available to provide training to these personnel, consultation to the regular school personnel, and direct services to children whose needs are beyond the capabilities of professional personnel in regular programs. The training of such specialists is a major concern of the Bureau of Education for the Handicapped.

There are, of course, many opinions on what constitutes the best sort of educational experience for handicapped children. It is just such differences of opinion that keep the field vital and provide the basis for improved services in the future. The fact remains, however, that no one has the answer to what is *the* best course to follow. What is best for one child may not be best for another. For this reason, it would seem essential that all options be left open, just as all minds must remain open. We must permit and encourage the development of what some might consider to be traditional programs and, at the same time, we must insist that new approaches, which may lead to improved services, be developed and demonstrated. The field of special education can ill afford to assume a negative attitude either toward the old or the new without adequate follow-up and evaluation. We must not permit valuable time and energy to be wasted in fault-finding while millions of handicapped children are denied the educational opportunities they so desperately need.

REFERENCE

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Who Gets A "Special Education"?

Wilton Anderson

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Special Education: For whom? Toward what purpose? The pendulum of education theory swings back and forth across the decades, sweeping along its path our attitudes toward and attempts at providing real learning situations for "educable mentally retarded" children whose IQs (a measurement questioned in its own right) fall between 65 and 80.

This paper is a look at the development of the philosophy of special education in American schools and especially at the creation of isolated special education classes. There is disquieting evidence that these classes serve as a holding operation for many racial and economically deprived students who could receive a better education sharing classrooms with other students whose talents and backgrounds vary greatly.

The questions dealt with here center around what is unfair in the separation of disadvantaged students into special education classes; and what can be done to get them back into the regular classroom, what can be offered them once they are there, and just how the Career Opportunities Program fits into this effort.

Statistics indicate that most children in special education classes are from low-income backgrounds. In 1968, for example, a report of the mentally retarded in the United States contained the following findings:

> Three-fourths of the nation's mentally retarded are to be found in the isolated and impoverished urban and rural slums.
>
> . . . .
>
> Conservative estimates of the incidence of mental retardation in inner-city neighborhoods begin at 7 percent.
>
> . . . .
>
> A child in a low-income rural or urban family is 15 times more likely to be diagnosed as retarded than is a child from a higher income family (President's Committee on Retardation, 1968).

Such statistics must influence the direction of special education in the future. New people coming into school systems through the Career Opportunities Program of the Bureau of Educational Personnel Development will be able to participate in setting the new course.

Past and Present Perspectives of Special Education

Marjorie B. Smiley (1967) traced the history of education in the United States that led, finally, to separated special education classes over the past 30 to 40 years. The nineteenth- and early twentieth-century drive toward a compulsory education for every child provided specific modifications in the curriculum for children with physiologically-based disabilities as well as creating "Americanizing" approaches for non-English-speaking children. Pupils coming out of economically and racially disadvantaged backgrounds were given no special education until it became evident by the 1930's that the "normal" schooling of the day was not meeting their needs. At this point separate classes were devised for them, which Smiley described on the whole as

> . . . merely attenuated, substandard versions of traditional curricula. As the critics of these programs charged, and as even some of the teachers and administrators engaged in them admitted, the aims of adjustment and remediation were often replaced by the aim of containment (Smiley, 1967, p. 124).

Regular teachers in regular classrooms who could not cope with the irregular behavior of children dissatisfied with their learning environment shifted them to special schools and classrooms, convincing themselves that the isolation was for the students' own good.

We are coming today to face the fact that special education has been aimed at children more often short-changed by society than by nature. And, according to studies cited by Lloyd Dunn of the George Peabody College Institute of Mental Retardation and Intellectual Development (1967), they are still being shortchanged today. He argued that retarded children make better progress in regular classes than in special education situations.

> Another argument for change are the findings of studies on the efficacy of special classes for the educable mentally retarded. Their 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 (p. 5).

Thus the 1960's have borne witness to a need for a move away from the separate special education classroom and a return to the concept of an equal and integrated education for all but the most severely handicapped, enveloped in a broader understanding of the issues and implications of today's education in today's world. The 1954 Supreme Court desegregation decisions precipitated some hard looks at our educational system that we as a nation had been avoiding. In many cases the problems we found seemed almost insolvable, so we averted our eyes once more and rushed toward more separate special education classes and toward a tracking system, or homogeneous

grouping, as the save-all for education. In point of fact, grouping was a resegregation device.

The insolvable problems centered around the provision of an adequate education for black children in cities and rural areas who had been the victims of poverty at home and a lack of even minimal governmental attention to their schools. Not so coincidentally, Chicano, Indian, Puerto Rican, and white children in disadvantaged circumstances were in the same predicament, but the spotlight fell on the black child.

Dunn (1967) put great emphasis on the decision of Judge J. Skelly Wright (1967) to abolish the track system in the District of Columbia schools as a watershed in attitudinal change toward special education. Judge Wright (as had Dr. Harry Passow in his 1967 report on the public schools commissioned by the D.C. Board of Education) found such tracking "discriminatory toward the racially and/or economically disadvantaged, and therefore in violation of the fifth amendment of the Constitution of the United States." The uproar was loud, the decision was appealed, but the ruling stuck, and schools in the District of Columbia opened in September 1967 with special education classes and teachers for the educably mentally handicapped integrated into regular classrooms—just where Dunn believed they should be.

To this civil rights issue is added that of our present-day economy. Special, separate ("general" as opposed to "academic") courses of study that did not actually enrich the pupil have been tolerated by him and his parents for years because, once he escaped from school, he could earn what he considered a reasonable salary at unskilled labor. Increased specialization is making that opportunity fade today, and its demise is bringing a new awareness of the school's responsibility in opening educational opportunities.

In addition, there is the whole, broad question of the measurement of a child's IQ, potential, and achievement, and the labeling of a child as mentally retarded. So much of diagnosis in previous years has been used to pigeonhole a pupil into a semi-permanent slot. Diagnosis should serve as a basis for future corrective action, not as an educational death sentence. Certainly, there are children physically handicapped to the point of needing special education classes but they are a small minority of those now assigned to such classes.

Where, then, is education going to head in the 1970's if our desire to educate all chidren is real? Benefits to disadvantaged, retarded children are not forthcoming in self-contained classes. Obviously, a revamping of the regular classroom situation is called for. The programs of the Bureau of Educational Personnel Development and, specifically, the projects of the Career Opportunities Program should help schools rise to the challenge of educating disadvantaged children. The Career Opportunities Program, because it will be directed at

attracting and training the disadvantaged to work with the disadvantaged, will recruit, train, and place supportive workers in mental retardation services.

Education by Prescription

Things are happening in U.S. schools today that promise opportunities for children who should be getting back into the classroom from special education classes: new approaches to diagnosis, with emphasis on diagnosis as a continuous process that uncovers needs, experiments with possible, positive, curative steps, and prescribed methods for use in the regular classroom. Gary F. Kohlwes described the process of what he termed the "Prescriptive Educational Program" or PREP (1968).

> PREP exemplifies an educational orientation to the learning and behavioral difficulties of children. It promotes preventive practices, inter-disciplinary involvement and prescriptive treatment planning. To a child experiencing learning difficulties, aid is given in the form of diagnostic service, prescriptive treatment planning, program revisions, modified instructional techniques, or changes of classroom and school environment variables. PREP is implemented by clinic personnel, reading specialists, diagnostic teachers and classroom teachers. In each instance, however, it is the classroom teacher who is seen as the key person in modifying student behavior. Behavioral changes in children are effected through working with teachers, involving them as a primary change agent. Attention is given to curricular and instructional modification for individuals suggested as the result of diagnostic study. The classroom has become the clinic and primary laboratory for study (p. 2).

The classroom itself is being enlarged physically at the same time it is broadening psychological horizons. School buildings with movable walls or no walls at all put pupils in an open, relaxed atmosphere, motivated to move from one involvement to the next. Teams of teachers, aides, specialists, counselors, and administrators are developing capabilities to give a "special" education to each child, tailoring each week's (hopefully each day's) schedule to his changing needs. Those who have suffered progressive deterioration in separated classes should now move out into the mainstream and receive these new benefits. Compensatory learning for the disadvantaged—in language, skills, and attitude—can take place within this environment.

Career Opportunities Program

The Career Opportunities Program will enhance the possibilities of a comprehensive program suited to each child. Its entire thrust is toward providing a better education for children in low-income com-

munities (those same communities where most of the special education recipients live) by bringing low-income residents into the schools as paraprofessionals to work in the classroom, training them at the same time in colleges and universities toward professional accreditation. Fifteen percent of approximately 10,000 trainees in 130 Career Opportunities Program projects across the country will be working with children who need a "special education" in the regular classroom. They will bring to it new and real talents, knowledge, understanding, and perceptions of these children. The compensatory education needed by an Indian or Mexican-American child who speaks little or no English, starts on the day he walks into a classroom and finds a bilingual aide, who speaks his first language, in addition to the teacher who cannot. Career Opportunities Program's emphasis on male auxiliaries may bring the special education that has been missing for the boy who has not known a father.

It is expected that the time provided the teacher by the paraprofessional working in the classroom will be put toward the continuing diagnosis that each child needs. Looking into the future, it is present aides, training through Career Opportunities Projects, who will bring four years' experience into the school when they become diagnostic teachers themselves.

A further aspect of the influence on special education of the Career Opportunities Program in low-income schools will be the youth-tutoring-youth programs at each of the 130 sites. Underachieving 14-, 15-, and 16-year-old students will be paid for working with younger children who are having learning difficulties—in both cases often the same children who have previously been shunted off to separate special education classes on the assumption they were too retarded to stay in the classroom.

Many youth-tutoring-youth programs across the country have exhibited results surpassing expectations. In New York City, over a five-month period, those tutored gained 6.0 months compared to a control group's gain of 3.5 months, while the tutors gained an extraordinary 2.4 years compared to a control-group gain of 7.0 months. Both tutors and tutees find new motivation and sense of responsibility in responding to each other in renewed efforts to teach and learn.

What will the classroom teacher, the counselors and diagnosticians, and the new educators being brought into the school under the Career Opportunities Program teach these youngsters who are reentering the regular classroom? What will they offer that was missing before? Dunn (1967) would urge a whole new emphasis in creative curriculum. He would shift from concentration on practical arts and practical academics to a program encompassing the following broad areas: environmental manipulations, motor development, sensory and perceptual training, cognitive and concept formation, expressive lan-

guage training, connative (or personality development, and social interaction training.

Dunn (1967) also saw the "springing loose" of creative educators who are capable of developing sequential curricular systems along these lines. He advocated a "curriculum development center in special education" (p. 11) for every large school system. It is obvious that Dunn is quite certain that the answers to breaking the learning code for disadvantaged children are there if we will exert the energy and spend the time and money needed to uncover them.

Perhaps the most urgent call for the change and redevelopment needed in the field of special education is sounded by Dunn (1967) in the concluding statement of his paper. The educational community should listen and act.

> 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 all be taught as though they had IQ scores above 120). I feel so strongly about the wrong we are perpetuating that, know what I'd 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 schools 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 (p. 16).

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Strategies For Improvement Of Educational Opportunities For Handicapped Children: Suggestions For Exploitation of EPDA* Potential

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One's view of the educational scene is unavoidably colored by personal experiences encountered in trying to deal with educational systems, whether this experience was accrued as a consumer of the system or as a professional trying to improve it. The view from my position is that education is a single continuum on which all children have a place where they should be educated as individuals rather than as parts of systems. The primary educational goal, to me, is to increase the educational mainstream's capacity to accommodate to differences in the individual characteristics that children bring to school learning-tasks. The burden of achieving this goal, consequently, rests with those of us who are concerned with the training of teachers for the classroom.

The second part of this paper contains five suggestions for achieving the goal through possibilities provided by the Special Education program of the Educational Professions Development Act (EPDA). Enacted by Congress in 1967, the Act provides an umbrella for the centralization of many programs concerned with the training of personnel for the schools. A priceless opportunity to integrate regular and special services more effectively is afforded by the requirement that a proportion of EPDA funds be used to enhance educational opportunities for the handicapped.

The Relation of Regular and Special Education

A first-order conviction born out of my experience as a teacher, child psychologist, special education administrator, and consumer of the literature in the field is that whatever distinctions can be made between regular education and special education are mainly organizational and not substantive, that is, the manner in which learning experiences need to be presented is the main basis of distinction. Whatever learning principles apply to handicapped children apply to all children and end goals are the same in their most essential aspects.

Useless amounts of time and energy are wasted in trying to define for all time and all places what differentiates "regular" and "special"

* Educational Professions Development Act.

education when the definitional effort addresses to anything other than who is to be responsible for providing what *services*. It is my impression that administrators responsible for implementing whatever is "special" about special education seldom are confused on this point. They are well aware that what is "special" about special education is the delivery system and not the fundamental content of what is to be delivered or the purposes of delivery. Regular educators and academicians seem less certain.

Some special educators find unacceptable the distinction of their responsibility on the basis of the outside capabilities of the regular system. They cringe at the thought of defining their responsibilities as those that regular education rejects or fails to perform. They prefer to rest their identities as special educators on what they perceive to be more positive professional grounds.

This lack of understanding and agreement on boundaries of responsibility is one of the central difficulties standing in the way of better articulation between regular and special education services. In my opinion, *better coordination of regular and special education services is a primary need of our time if we hope to improve education for handicapped children. The EPDA program is in a most favorable position to promote this needed articulation.*

Improved coordination can be achieved only if the factors that make it difficult to mesh the two delivery systems are identified and directly attacked through a fully professional, problem-solving approach. The reasons why the two systems do not mesh to the greatest benefit of all children are understandable. They go back as far as society's original reasons for establishing compulsory public education and they are fed by the natural tendency of any organization to get rid of what makes attainment of its goals difficult and thereby creates discomfort within the structure. These conditions are exacerbated by the unrealistic goals we set for educational pursuits while, at the same time, we use the system to relieve a variety of social problems.

In asking regular education to be more accommodative to handicapped children, special educators are asking regular educators to work harder, at greater pain and cost, and with the prospect of less success per system effort, which is expended in terms of the criteria regular education and its supporting public commonly apply to measure system success. The special educators are making this request at a time when pressures are coming at school systems from every side to perform better and to take on more responsibility for solving social problems. Additional demands to stretch staff time and dollars are not likely to be welcome when demands are as extensive as they now are.

It is particularly hard to defend such a request after a long period in which regular teachers have been indoctrinated with the idea that

children with special problems must have treatment by a specialist who is sanctioned by credentials to deal in depth with the kind of atypical behavior presented. A separate financial support system was made available for children defined as "special" under this conception. What we now must do, to some degree, is to unteach what we previously taught. Regular teachers need reason to have confidence in their ability to deal with the majority of the needs of children we previously defined as too "special" to be ministered to by a regular teacher. This confidence can only be accomplished by providing the teachers with the skills and teaching circumstances required to meet the children's needs.

Having found that most children conceived of as handicapped by traditional, medically-based, categorical criteria are probably better off in the regular educational mainstream than sidetracked into segregated special classes, special education needs to share with regular educators whatever expertise it may have acquired over the years or may yet generate through further experience and research. At the same time, it needs to gain better understanding of the potentialities of mainstream provisions. Neither regular nor special education can operate as a monolithic, stand-alone system if it hopes to achieve what is best for children.

The special education field must direct whatever forces it can muster to helping the regular system achieve the necessary understanding and tangible resources to become maximally accommodative to the needs of children who show different learning styles and, at the same time, to insure that specialized education facilities and appropriate treatment options will be available for those residual children who genuinely need special circumstances and methods outside mainstream provisions to maximize their learning. Special education has to organize itself for a double-pronged approach: direct service to children who cannot reasonably be accommodated in the educational mainstream and, working hand in hand with regular education, the development of mainstream technology and implementation mechanisms to improve the total enterprise. Regular educators cannot afford to ignore the richness of technology and curriculum opportunities emergent in mainstream education.

On this assumption, I recommend that we envision educational services on the kind of service continuum illustrated in Figure I. The tapered design is used to indicate the considerable difference in the numbers of children anticipated at the different levels and to call attention to the fact that the system itself serves as a diagnostic filter. The most specialized facilities are likely to be needed by the fewest children on a long-term basis. Actual work with children provides the best diagnosis if it is thoughtfully conducted.

This organizational model can be applied to the development of

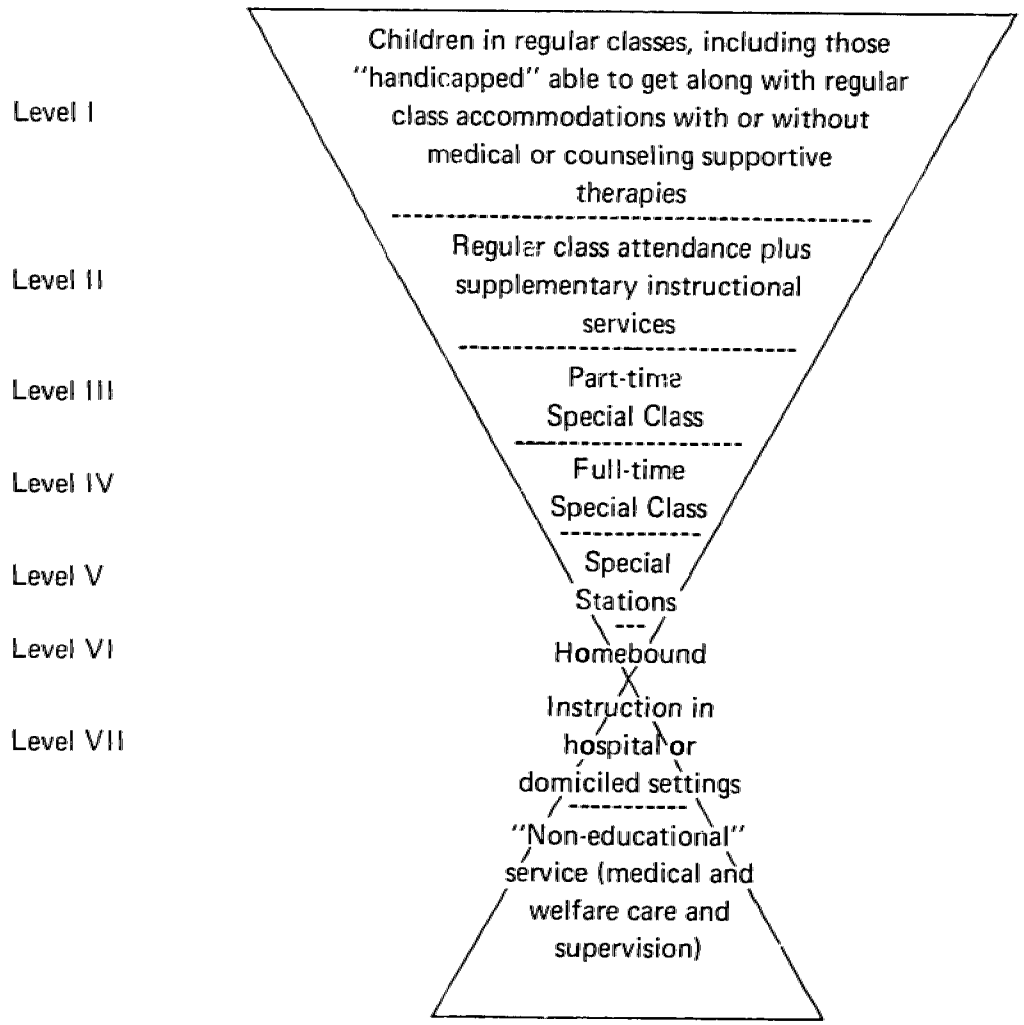

Fig. 1. The cascade system of special education service. (Reprinted from an article by Evelyn Deno from the November 1970 issue of *Exceptional Children*, *dren*. Copyrighted by the Council for Exceptional Children, November 1970.)

special education services for all types of disability. It assumes that there will always be some children who require the help of specialists. It assumes that the characteristics of children who fall out of mainstream provisions will change continuously as mainstream provisions, medical practice, and social conditions change, because learning problems are presumed to be the product of the interaction between the child and the kind of "education" impinging on him at home, on the

streets, and in school. Where regular education responsibilities should end and special education's should begin is definable only in terms of the individual case in its particular situation. Under such conditions role conflict is inevitable. What is needed is will and mechanisms to solve the problem of who should do what, not tighter role-boundary definitions.

The cascade model assumes that children are seldom all able or all handicapped. They more frequently present their teachers with a marble cake of aptitudes and dysfunctions that cannot be adequately described by categorical classification of children on an "he is or he isn't" basis. The organizational model recognizes that children need to be programmed individually, that the only fundamentally meaningful class, for educational purposes, contains an *N* of one.

This conception provides language and pictures relations in a way that may help to clarify some of the problems to be expected in trying to blend regular and special education services. It places a human bridge in the person of a resource or support teacher at the touch point where the regular and special education systems must mesh if children are not to be caught in the crunch of systems proceeding according to rigidly defined outreach limits. By promoting compatible instructional approaches and more effective case management mechanisms, EPDA can provide critically needed leadership to articulate and synthesize regular and special education resources for the benefit of all children.

Certain central problems are obvious. For one thing, the bureaucratic approach to decision-making is inadequate for the task of making the kinds of decisions that are necessary if an educational system is to honor the fact that a child cannot be classified as either special education's child or regular education's child except in terms of specific teaching objectives cast over a very limited time span. When treatment decisions involve technical judgement and are valid for only limited time periods, the school administrator cannot be expected to have either the omnipotent wisdom or the time to make them in the manner and at the moment they are needed. Just as the field of medicine now finds that it may have advanced too unthinkingly down the specialization path leaving a vacuum of resources at the primary physician level where the discrimination potential ought to be, so has education failed to provide people to be first-level discriminators of need in educational settings. Unlike medicine, which lost the generalist resources it once had to the more prestigious and higher-paying medical specialties, the educational system has kept its general practitioners, that is, its regular classroom teachers. But it disarmed them. They have been drilled into believing that they are only qualified to do as they are told by an administrator or specialist and that they should not try to diagnose or deal with behaviors they

are not "certified" to understand and treat. The problem involved here is not peculiar to education, as noted by such writers as Bennis (1969, 1970) and others.

To help us out of the corner into which we have painted ourselves, EPDA might undertake such projects as are discussed in the following section.

Potential EPDA Projects

1. EPDA might sponsor a conference to identify critical factors contributing to the present discontinuity in regular and special education services and to develop recommendations on the directions in which EPDA might invest to promote improvement of understanding and coordinated service delivery.

There are many reasons why regular and special educators find it hard to synchronize their efforts. In spite of the fact that both programs claim similar objectives, the facts are that in practice the two programs have manifested critical differences in emphasis that make it difficult to mesh them.

Both regular and special education programs espouse a humanistic point of view that defines the primary function of the schools as cultivation of the maximum independence of each individual and maximum realization of each child's potential. In fact, neither regular nor special educators have seriously assumed that this ideal could be accomplished. Though regular educators embrace personalized, humanistic, educational goals, the success of the educational system has been evaluated primarily in terms of how useful the system's products are to other institutions of society, that is, how well they fill the roles defined by the social order for its citizens. In practice, schools have given priority in emphasis to this managerial function rather than to the humanistic value verbalized as their primary mission (Green, 1969).

Though special educators will sometimes argue for investment in special education and rehabilitation services on the grounds that taxpayer money will be saved in the long run, humanistic goals are emphasized whether the child is likely to achieve social independence or not. It is possible that the tendency to be sympathetic toward the handicapped and expect little of them has made it more possible for special education to maintain a more fully humanistic orientation. Dedication to this humanistic, best-for-the-individual orientation often creates dissonance in relation to the norm-referenced regular education system.

In keeping with its managerial orientation and the limits of the resources the public provides for the schools, regular education's evaluation criteria and instructional approaches have been aggregate rather than distributive in their focus. The overriding concern has

been how well the system is doing "on the average." Regular education's resources have permitted little more than a mass-education approach.

The special education system came into being to serve a distributive function. Its mission was to bring educational opportunity to children denied rightful opportunity under the aggregate approach. To this day its major concerns are distributive—getting the right kinds of opportunity to children who are hard to reach educationally.

Regular education is being challenged as never before on the question of whether it is distributing educational opportunities fairly —not just to those children who learn easily but to those children who do not fit aggregate-approach assumptions. Regular education is increasingly trying to meet the kinds of personalized instruction goals that special education has pursued for some time but it is questionable whether the public is really willing to support individualized, humanistic, and equal educational opportunity for all children. Which children can learn under aggregate mainstream conditions and which must be given a more individually-tailored opportunity if they are to survive socially remains a difficult distributional question.

Differences in how clientele are categorized contribute to discontinuity and conflict. The regular education system has historically organized itself along subject-matter lines geared to norm-derived, age-grade expectancies. Special education has organized itself along medically-based, handicap-category lines in which subject matter objectives are considered subordinate to or at most instrumental in achievement of humanistic goals. This difference in approach creates slippage where responsibilities meet at the regular-special education boundary line. Tests and other assessment devices customarily employed by schools to determine special education's clientele are seldom capable of making the translation from regular education's age-grade and subject-matter frame of reference to special education's personalized objectives and the identified learning styles of individual children. Unless we can achieve a common frame of reference, constructive dialogue will remain difficult to attain and curriculum cripples will continue to be conceived of as constitutional cripples.

2. EPDA might sponsor stipend support and inservice training of regular curriculum consultants and regular classroom teachers in the kinds of content provided for teachers training to work with emotionally-disturbed or learning-disabled children. One would guess that regular classroom teachers, curriculum consultants, and others who received such training—including well-supervised practicum experience with severely disturbed children, learning-disabled children, and other kinds of handicapped children—would emerge as more skillful and accommodating teachers for all children.

During the period required for the mainstream to become more

accommodating to the learning needs of individual children, there will continue to be fall-out children who need special help and regular class teachers who need continuous on-the-spot consultative support. We believe teachers talk teacher language and possibly understand teacher's problems more readily than do "outside specialists." The Level II (see Figure I) S.L.P.R. (Special Learning Problems Resource) teacher can render both direct service to fall-out children and continuous, consultative service to regular teachers to help them expand their ability to serve such children. If EPDA funds can be used to help the regular class teacher acquire background that gives her better understanding of what the S.L.P.R. teacher is seeking to accomplish, communication between the regular and special teacher will be facilitated and regular and special education services are likely to be better articulated.

In developing the S.L.P.R. model we may dream that such a teacher might not need to exist some day when more effective regular education systems are attained. The basic purpose of this role is educational improvement, not another self-perpetuating delivery system.

3. EPDA might sponsor with BEH, the National Institutes of Health, the American Psychological Association, and/or other interested agencies a conference or systematic study to determine (a) how behavioral science input is best fed into the decision processes of educational systems to produce desirable change and, relatedly, (b) whether support for the training of school psychologists should be provided below the doctoral level. If so, there should be determination of which federal agency should provide scholarship support for subdoctoral school psychology programs. It seems that no federal program is now willing or able to assume responsibility for support of the subdoctoral training of school psychologists.

4. Support opportunities (scholarships, special study institutes, etc.) should be considered for regular education leadership personnel (administrators, curriculum specialists, etc.) to take work in the special education field, and to provide inservice training for special educators that taps what regular educators can contribute from their expertise to develop better curricula and methods for handicapped children. Special education funding patterns foster excessive ingrowing of special education training and service development. Special education sorely needs to open its doors to the richness in the regular education curriculum domain.

5. EPDA might combine with BEH to support projects directed to developing more feasible strategies for serving handicapped children in the educational mainstream. If more handicapped children are to be served in the mainstream, support funds may need different channeling.

Summary

It is entirely possible that many of the directions suggested are already being pursued under EPDA's program and that the writer is merely uninformed of what is being promoted. On the other hand, the need to achieve smoother articulation of regular and special education services is enormous. The attack has to occur on many fronts.

It is likely that professionals below the top-most administrative echelons are the ones who will actually make the articulation happen and that these are the people who most need to acquire new skills if the goal is to be accomplished. Since EPDA funds are limited, they are best directed to training leaders who can in turn move or train others. However, achievement of successful multiplication effects requires their occurrence in a field of forces moving according to a compatible plan for educational improvement. The greatest mileage may be achieved from limited funds by supporting projects that appear to be congruent with a well-coordinated part of a broad statewide plan of action.

In the same way, and for similar reasons, the special education program of EPDA may best serve the mission it has been given if it combines with other EPDA programs directed to areas seen as priority targets for improvement, if the number of children perceived as handicapped in educational settings is to be reduced. Examples or priority areas for joint Leadership Training Institute promotions might be early childhood education, school support services (school psychology, counseling, nursing, social work, and health) and leadership/administration. These areas are key elements in a total push toward prevention of unnecessary learning failure.

As we move to improve accommodation of more children with different learning needs and styles in mainstream settings, it is essential that the children with special needs be protected from a too easy glossing-over of their needs and problems. If this meritorious effort fails because it failed the children for whom the special education system was given advocate responsibility, opportunity for a second chance may be a long time coming. Courage and caution need to combine in a special amalgam in capitalizing on this opportunity provided by the EPDA special education program for improving the lot of the handicapped.

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Complete Individualization Of Instruction: An Unrealized Goal Of The Past Century

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It is much easier to explain how special education removed itself from the mainstream of education than it is to design a plan to reintegrate the two programs. Some fairly obvious forces that led to the instructional divergence include separate financing, the use of medical certificates for admission, and the desideratum of focusing on the special needs of children to obtain enabling legislation. Since it took 50 years to establish the separation that exists today in the public schools, we must be patient with the time it will take to modify practices significantly. It always seems to take more time to straighten a fishline than to tangle it.

One of our common errors has been to discuss all disability groups in special education in relation to the application of a single reform. But we are dealing with very diversified handicaps among the special education groups and with children who have some individual uniqueness. The marked degree of heterogeneity makes meaningless a general discussion of educational planning for all such children. It is misleading to say the trend is to return all exceptional children to regular classes. The severely handicapped, in particular, will never fit into regular classes as they are now operated. A recent article by Dunn (1968) has been widely misunderstood to suggest complete integration. More careful readers note that the title of the article refers to the *mildly retarded*. Some educators and many laymen have tended to overgeneralize and interpret the suggestion set forth as applying across the board in special education.

It is only recently that we have recognized that there are for some exceptional children, notably the gifted, several instructional approaches that have merit. As we increase the number of instructional options or administrative plans for serving exceptional children, we introduce a flexibility that helps us to move out of the rigid practices of the past. This noticeable flexibility may well be the first step toward some fundamental reassessments of our practices. The proposal that is set forth here was based on an awareness of the influences of the past and on some concern about the professional rigidity that one finds in our schools. Consequently, a major concern of the proposal is in ways of making changes through professional growth and change in the attitudes of educators.

A Proposal To Integrate Regular and Special Education

This proposal is founded on the assumption that additional effective integration must be based upon the modification of the training of all teachers. The simple administrative solution of a required course on exceptional children in the program of preparation for all teachers is certainly not implied here. Imagine the boredom of the students who face another required course taught, far too often, by someone who has to fill up his schedule!

Premises

The premises of the proposal are as follows:

1. Instructionally significant variables occur to some degree among *all* children. Some variables retard learning while others facilitate intellectual growth. These differences occur not only between individual children but also among factors (deficits or potentials) within a given child.

2. Educational psychology, methods of teaching, and practice teaching must become more relevant and deal realistically with the full spectrum of individual differences as they are related to teaching and learning.

3. School organization and instructional practices must become centered *primarily* upon administering to individual needs.

If these premises were fully accepted by all professionals who are preparing teachers, the field of special education would lose its clear demarcation from regular education. The problems of children would become the focus for teacher preparation and the full range of learning problems would become the absorbing interest of all who instruct teachers. Likewise, the product of training, the new teacher, would have some competence in dealing with the wide range of variables that influence learning. Perhaps no one teacher can be asked to prepare to meet the full range of differences, including the severely handicapped such as the congenitally deaf and trainable.

Individualization: A goal for a century

It is proposed that we view all children as having at some time or other some unique learning problems. Indeed, the able child who is an advanced reader may well have problems in schools as they are currently structured. Some relatively normal children progress in the different subjects at uneven rates. These variations in growth have inspired numerous plans for the individualization of instruction during the past one hundred years. The St Louis Plan was put in operation in 1868; in the mid-twenties another wave of interest in individualization of instruction occurred and the twenty-fourth yearbook of the National Society for the Study of Education (Carlton, 1925) was devoted to principles and plans for the individualization of instruc-

tion. The common current interest in programmed learning is but another manifestation of the individualization movement. It may well be that the dream of individualization will be achieved in the future as a result of the advances in educational hardware, including the principles of programmed learning. Despite all these efforts, individualization of instruction is not widely practiced today. *No principle of instruction has had such universal support at the theoretical level and, at the same time, such limited genuine application.*

Schools are structured around artificial groupings of children and rather narrowly conceived approaches to meeting their needs. Rigid grading of children, accompanied by instruction based upon *prepared* instructional guides, provides an unrealistic setting in light of our knowledge of individual differences. Schools must be restructured around centers of learning (developmental, remedial, therapeutic) with specialists who are able to facilitate *all* types of growth. The details will be described later.

Except for the moderately to severely handicapped, most exceptional children's instructional problems are not distinctly different from those of normal children. It is difficult or impossible to identify a learning principle and/or a teaching guideline that is uniquely applicable to such exceptional children. Indeed, teachers of normal children often copy the drill devices and teaching aids that special teachers have worked out in desperation. There seems to be only one "type" of nervous system that is stimulated by a set of somewhat similar receptors.

Educational psychology has not dealt adequately with the relevant variables that condition learning. Selecting two widely used textbooks in educational psychology on my shelf, I checked the indexes for the treatment of such topics as vision, perception, hearing, intelligence, and mental development. I found no reference to vision or hearing in the index of either text and only brief references to perception. Mental development and intelligence were both treated in approximately 50 pages but the treatment was more of a general background nature rather than a discussion in relation to learning ability and learning processes.

An immediate experimental approach

It is proposed that selected departments of special education set up a training model on a team-teaching basis that would involve the resources of both the elementary education department *and* the department of special education. One might restructure certain courses—especially educational psychology and methods—so that the emphasis implied in the premises of this proposal is realized. A sincere effort to redefine relevant individual differences by the education psychologist, the special educator, and the expert in elementary education

should be fruitful. In the initial stages, one specialist might assume the role of a resource person to the other specialist. Eventually a genuine effort must be made to restructure the subject matter around the real problems of the learner.

Long-range approach

Let's assume that our diagnostic techniques and ability to describe all relevant aspects of development continue to grow in sophistication and to become truly helpful guides to instruction. It is assumed here that additional instruments may be developed that will measure or describe such factors as motivation, cognitive styles, "storage" capacity, visual efficiency, language ability, and many other factors. If we acquire the skill to describe a child adequately in terms of his potential for learning and his status at any given time, we will have accomplished the first step in the proposed long-range approach set forth here. Here is where the revitalized educational psychology must assist all of us.

Assuming that we have all the relevant data on a child at age 3 to 4, a desirable age for the first stages of formal education, we could then structure a program that relates to his development and potential. The terms "physically handicapped," "retarded," or "gifted" as now employed would begin to lose some of their relevance because every child would be considered a unique individual and his educational needs would be fully described for him as an individual: His potential for growth would be the center of focus. The challenge of individualization becomes the primary problem of the school. Since our descriptive data on each child would be profusive, we would be forced to use the services of a computer to store this information and to assist us in programming.

Having completed a definition of a child's needs at any given stage, whether at age 3 or 12, the needs can be related to an appropriate "setting" for individualization. A "setting" is considered here to be not only a location but also the appropriate teaching and learning resources. Learning resources would include such arrangements as small group teacher-directed instruction, full array of individualized materials relating to basic skills, small group pupil-directed learning, private and group study rooms, a variety of special therapies (i.e., speech improvement), group counseling, individual counseling, clusters of creative work centers, self-evaluation stations and *many, many* others. The elementary school would become a cluster of special services that are comprehensive enough to serve the needs of all children except the severely handicapped.

One may visualize the essentials of this proposal with the assistance of Figure I. The Periodic Inventory card contains all the relevant educational data at a given period for a child. Since *all* children being

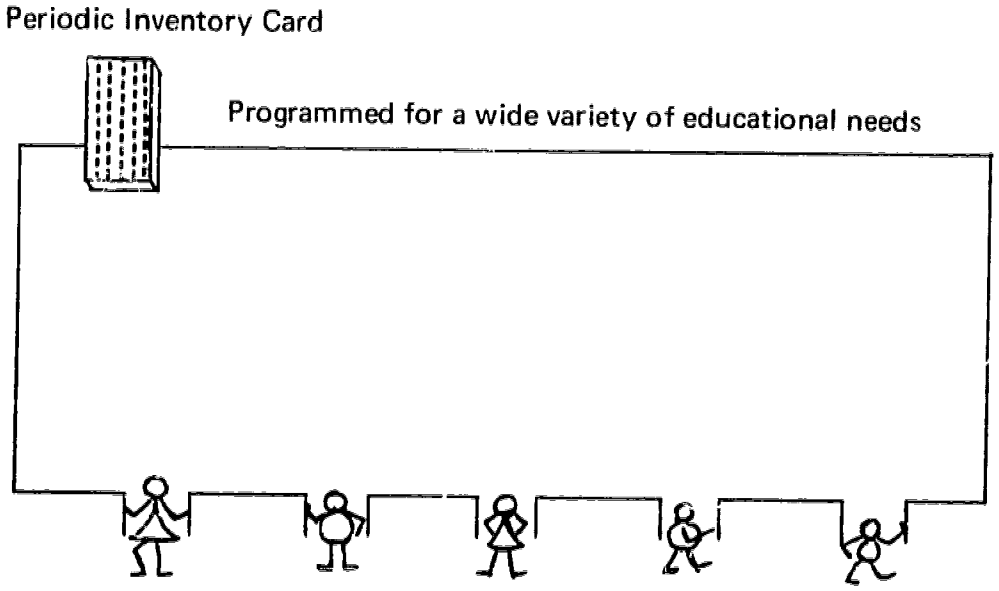

Fig. 1. Representation of long- and short-term placements of exceptional children in a variety of school services: developmental, remedial, therapeutic, etc.

served have cards, the traditional grouping, such as the superior, the normal, and the handicapped, is no longer appropriate. Each card is processed through the elaborate programming device in order to determine the next short-term placement (perhaps six weeks). The printout on each child will describe appropriate educational services. Needs and services have replaced such groups as normal, slow, handicapped, and gifted. Developmental specialists, remedial technicians, and teaching aids now replace traditional teachers. Formal classrooms, in the traditional sense, are only used as a very last resort. However, small-group instruction may be commonly employed. The aim is to approximate the goal of the past century—the complete individualization of instruction, which, in this case, is based upon a full knowledge of all relevant factors in learning. Efforts in the past hundred years have met with only limited success due to (a) our lack of ability to describe learning ability and deficits completely, and (b) our limited specialized teaching resources. Workbook and contract were formerly the limit of our "technology." We seem to be approaching the stage of professional development where these limiting factors can be circumvented. Consequently, the payoff of the century-old dream may be near at hand.

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We Have Met The Enemy—— And They Is Us

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The design of training programs and the development of leadership personnel in special or regular education have been handicapped by some apparent faults in our conceptualization of the facilitation and maintenance of change processes in local delivery units. Leadership functions are too frequently perceived as the unique responsibility of administrative-level staff. With this focus, it appears that leadership activities are ascribed to particular positional levels or individuals within any given organizational unit. If definitions of leadership imply the capacity to intentionally modify and/or improve programs, this view of leadership function appears to be a rather insular one.

From my point of view, leadership is a *collective, cumulative process* rather than a uni-positional function. The process-oriented concept of leadership derives from a system that provides for mutually specified objectives and the interlocking of functions among the positional levels. This process of leadership is complicated by the fact that several critical levels of positional function are trained to provide specific technical skills, for example, "teaching," and to respond to supervision or administration. They are seldom prepared in any intentional way for orderly, effective participation in the leadership process.

The Pogo-based title of this discussion is relevant in that training personnel have traditionally concerned themselves to an undue degree with maintenance conditioning and "thing management," that is, buildings and budgets. Insufficient attention has been provided for "people process" concerns. In this sense, many of our training programs have been successful in that our graduates function as they have been trained. We have, in fact, met the enemy and they is us.

The position represented in this paper is not new or novel. The concept of mutuality in leadership was noted by Wynn (1970).

> Thirty years ago the NEA-AASA sponsored Educational Policies Commission enunciated a familiar doctrine, as appropriate today as it was then: "The formulation of school policy should be a cooperative process capitalizing the intellectual resources of the whole staff. . . . This procedure . . . makes the school in reality a unit of democracy in its task of preparing citizens for our democratic society."
>
> Had we practiced well this doctrine of administration over the past 30 years we would not now be witnessing the strident de-

mands by teachers for a part in the action in determining educational policies (p. 415).

Although Wynn was discussing collective bargaining, his observations appear equally relevant to leadership processes and to concepts of training personnel to participate in that process.

Positional Relations in School Systems

Most school agencies or "systems" may be characterized by the functional differentiation of staff at four general levels, as illustrated in Figure 1. Thus, a school district may be viewed in terms of the school's basic function, the bull's-eye of the target, surrounded by three strata of general upport functions. Any attempt to alter the characteristics of the basic function—instruction—is facilitated or restricted by the characteristics of the support or regulatory functions.

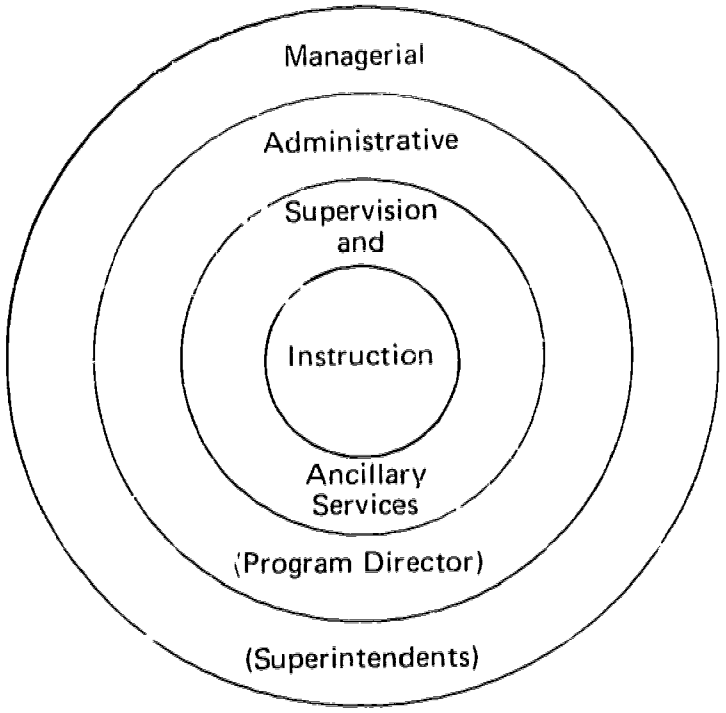

Fig. 1. Four general levels of staff functions in a school system.

Evaluation of the general activities in areas of research and demonstration projects suggests that from this view "instructional systems" frequently are considered to be only those activities that are unique to the center target area, and it is apparently assumed that manipulation of a small segment of one level of the system—instructional materials, for example—will result in some real impact on the instructional system as a whole. Further, it is assumed that change can also be generated by training one level for leadership.

A related practice is the training or equipping of teachers or direct service personnel with technical or specialized skills without being attentive to the environment in which these skills or procedures will be applied. This practice is illustrated operationally by the common habit of administrative or supervisory personnel of requiring teachers to redesign curriculum or instructional programs without giving concomitant or equal attention to the altered support functions that will be required of them in the implementation of the reconceptualized program.

The preceding illustrative concerns are basic to program refinement and development in either specialized or general educational programs. They appear critical when considered in relation to current thinking that suggests that less emphasis be placed on the child's accommodating to the educational system and more emphasis be placed on the educational system's accountability to the child. If this concept is a valid one to apply to evaluation of the teacher-student relationship, it would seem logical that it is equally relevant to consideration of the functional relations among the respective levels of the general educational system.

The trend away from categorical service programs in special education makes it obvious that the training of personnel in both regular and special education must demonstrate the same permeability to change that has been asked of field personnel. A specific focus of this paper is that training programs and specialized demonstration projects have a marked resistance to this type of permeability. It is evident that, very frequently, programs or projects in the same department in particular universities or colleges sadly lack provisions to coalesce functions and resources among programs and departments. Frequently, particular projects have random access to particular groups of field personnel for specific or specialized service or training functions; seldom are the programs and departments internally integrated for coordinated impact on particular aspects of training between and among positional levels. What results is a situation wherein various groups of people are trained in the utilization of various types of specialized skills but only coincidentally do these specialized training provisions have coordinated impact on the related levels of the general educational system.

It is proposed here that leadership functions can be best facilitated if they are conceptualized as the central area of circular, overlapping positional relations, as illustrated in Figure II. This conceptualization shows the need for integrated involvement of all positional levels in the leadership process as a basis for successful attempts to facilitate change. Thus, the process of injecting new program characteristics or differential staff functions into local school districts would be a controlled process involving (a) initial theory and conceptualization; (b)

the initial testing and debugging in controlled evaluation or instructional environments; (c) controlled entry into field programs for experimental demonstration; and (d) reproduction and generalization to general field practice.

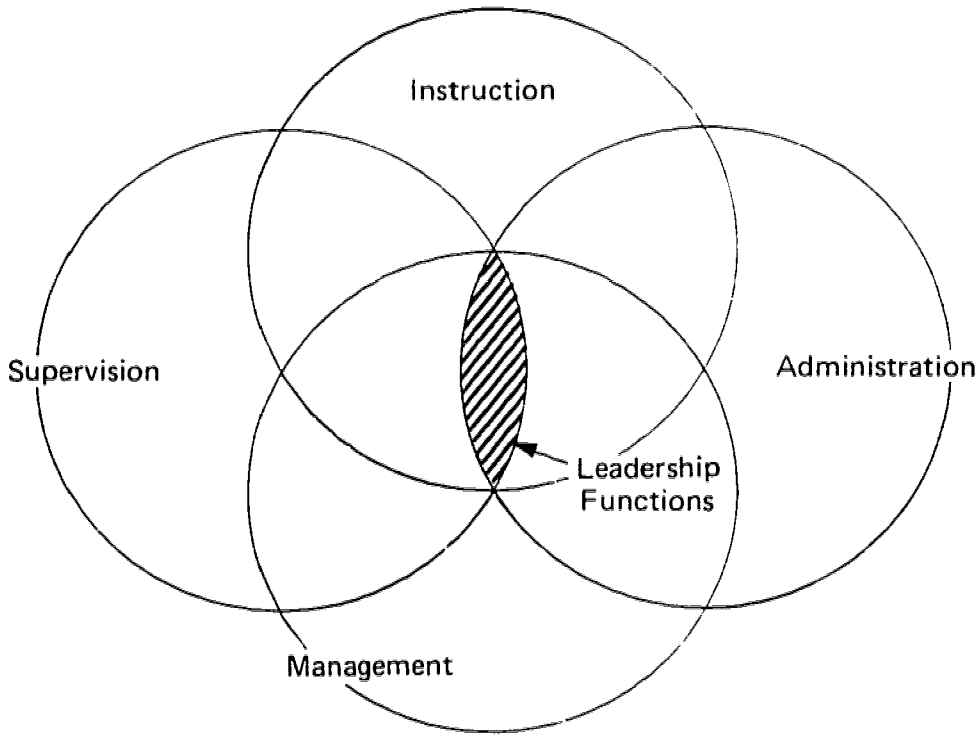

Fig. 2. A proposed conceptualization of relations among school positions to facilitate change.

Attempts to train or retrain personnel on a preservice or inservice basis must consider the related levels of functions in local delivery systems. As previously suggested, equipping teachers and other personnel with technical skills, which cannot be applied because of the insensitive management of support functions, is largely a futile gesture, particularly in projects designed for regional or general impact. The capability of direct impact in a general sense on the instructional program is apt to become too limited for any real effect.

Any personnel that are not integral parts of the local service delivery system have a reduced capability for impact. The realities of geographic distance and only sporadic entry prohibit them from achieving the desired objectives of serving specific personnel through improvement of their technical skills. It would seem far more plausible to direct training or support functions to the local intermediate supervisory, administrative, or ancillary support personnel who, in fact, control availability of materials and programming alternatives. These personnel are directly involved on a day-to-day basis and are in a

position to facilitate leadership processes and direct support of the instructional programs. There is an additional advantage in the concentration of service or training functions at this level since there is a greater generalization across classes and programs.

A requisite assumption to implementation of the training program is that broad impact on the characteristics of teacher behavior, and therefore the specific characteristics of the instructional program, is best accomplished by alternation of the system in which the teacher functions. The expectancy is that his/her behaviors will change as a result of the altered system characteristics.

Implications for Training

1. There is an urgent need for the integration of interprogram, interproject, and interdepartmental training functions. Training programs should simulate or provide for direct participation in leadership functions among the positional levels.
2. There should be increased use of technology for the information transmission aspects of training programs. This would free time for more direct involvement in more legitimate training functions.
3. Training for differential functions should be based on a concept of an educational system as a continuum of related functions evolving from a mutually responsible leadership "core" for program development.
4. Experienced administrator programs should complement experienced teacher programs to permit more extensive involvement of related staff levels.
5. The use of simulation, practicums, or internships in related areas of training is essential and can be made possible by minimizing the traditional lecture-based information transmission.
6. More emphasis should be placed on "how to think" rather than on "what to think" as a part of inquiry and problem-solving.
7. A redefinition is needed of the roles of field positional levels to provide for more specialized inservice training functions related to leadership process.

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See The Cat? See The Cradle?

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The problem to which this paper is addressed is that of developing promising strategies for the providing of special training to regular school personnel. The purpose of this special training is to enable regular school personnel to bring about changes in school practices and organization so that handicapped children may be better served. To do so with results that are reassuring and heartening requires an open and candid analysis of the present state of affairs. The meager results that stem from a variety of piecemeal, abortive attempts at program improvement for children and training support for teachers require that top priority be given to honest analysis, even if in so doing some injustice is done.

The title of this paper is derived from the observation that we have developed no significant teacher training to any appreciable degree in relation to the extensiveness of the need, nor have we developed any education for children that truly educates. Just as two hands laced with a loop of string bring forth no images of cats or cradles, most of what passes for teacher training is credentialing, and most of what is called education is schooling. The analogy is taken from *Cat's Cradle*, by Kurt Vonnegut Jr. (1963), a novel that I was introduced to by my children. It is of special significance that Vonnegut's works were popular among the youth as underground publications long before they came to the attention of the mass media and the general public. He is a writer who communicates with the young, and his status with them is a goal education would do well to achieve.

The success of a strategy is dependent on the extent to which it develops out of careful consideration of those issues that are related to the problem. The following issues have been selected for their promise in shaping a strategy:

1. The current crisis in American education.
2. The current crisis in special education.
3. The interface of regular education and special education.
4. Problems in effecting school change through training.

I would like to consider each of these issues in some detail before proposing a strategy.

The Current Crisis in American Education

T. S. Eliot said that we cannot bear too much reality. The current crisis in American education permits no further fantasy. Education is dedicated to liberating the human mind while schooling is a social process for teaching people their places in society. Illich (1968) used

the term "schooling" to designate a form of child care and a *rite de passage*. It came on the scene with the growth of the industrial state and involves year-round, obligatory, and universal classroom attendance in small groups for several hours a day for a period of 10 to 18 years.

> Schooling also involves a process of accepted ritual certification for all members of a "schooled" society. Schools select those who are bound to succeed and send them on their way with a badge marking them fit. Once universal schooling has been accepted as the hallmark for the in-members of a society, fitness is measured by the amount of time and money spent on formal education in youth rather than by ability acquired independently from an "accredited" curriculum (p. 58).
>
> The number of satisfied clients who graduate from school every year is much smaller than the number of frustrated dropouts who are conveniently graded by their failure for use in a marginal labor pool. The resulting steep educational pyramid defines a rationale for the corresponding levels of social status. Citizens are "schooled" into their places. This results in politically acceptable forms of discrimination which benefit the relatively few achievers (Illich, 1968, p. 74).

Illich (1969) documented the ills attending attempts to translate American education to underdeveloped countries, particularly in Latin America, and he was intense in his plea that these countries can neither afford nor benefit from the importation. Such attempts, he claimed, promise benefits for all but produce only a new elite that continues its exploitation of the masses. Though in less extreme form, it does the same at home.

Considerable attention has been given to the problems of teacher education and documentation of its emphasis on credentialing is not necessary. Suffice to say that teacher education is but one aspect of a social thrust through education that first made our society more democratic by emphasizing qualifications rather than connections. Now, however, this emphasis represents a barrier to democracy by promoting credentials rather than competence.

Much of our emphasis in schools on what children need to know as adults is based on an assumption of cultural continuity, that is, that we can extract from yesterday for application in schools today a body of knowledge, skills, and attitudes that will serve the young in their tomorrow. Such a state of cultural stability, however, is the farthest from current circumstances as technological and social change increase at a rate of acceleration far beyond anything ever known before. Future society can be characterized as unpredictable, with increasing numbers of jobs requiring advanced education, decreasing numbers of jobs at the unskilled levels, and retraining necessary for

all—as many as two or three times in a lifetime. Bennis (1969) called future society the "temporary society" and predicted that 40 percent of its work force will be social-change agents working at revitalization of our institutions.

Changes thus far have promoted a number of observers to proclaim that children today are different. McLuhan (1965) attributed the difference to television and speculated on the implications of the electrical environment as an extension of man's nervous system. For Margaret Mead, the change began with the children who have grown up since World War II with the knowledge that man now has within his capacity the power to destroy himself. She postulated three stages of education related to cultural circumstances—one in which adults instruct children, another in which children learn from peers, and the one we are in today in which adults and children learn from each other (Mead, 1970).

Berger (1970), in an attempt to shed some light on the generation gap, contrasted the circumstances under which we rear our children with the social demands under which we live as adults. Since schools are operated by adults concerned with the goal of finding one's place in a mass depersonalized society, Berger's observation sheds some light on the alienation of pupils and the crisis in education: In preparing pupils for a future advanced technological society, present conditions guide our planning; the future is so unpredictable, however, that educational standards of the present become more irrelevant with each passing year (Berger, 1970).

As of now, man's accomplishments have pushed far beyond his ability to realize their benefits in social living. To achieve the benefits requires a broad-based, competent electorate, comfortable with itself and able to give attention to matters of truth, love, and human compassion. We fail because we emphasize excelling, competing, measuring, evaluating, grading, judging, testing, and the like. One person is pitted against another in a series of games in which his gain is the other's loss. John Holt's wisdom lay in that he saw schooling as resulting in the development of strategies against failure by some pupils, and the development of strategies to beat the game, by others. Both strategies win but, in the winning, everybody loses (Holt, 1964).

When large numbers of people do not value themselves as human beings and feel themselves to be failures, we cannot help but have a nation plagued with problems of violence, aggression, and man's inhumanity to man. But perhaps most important of all is that in knowing what kids need to know and in seeing to it that they learn it, we have not paid attention to the kinds of attitudes they develop toward the material to be learned. A fundamental condition of any course of instruction, particularly if it is important from a cultural point of view,

should be that it does not lose its value as the persons enrolled in it learn more and more of its content.

Man's accomplishments arise out of the human mind. The human mind depends for its functioning on the structure of the human brain. There have been many attempts to draw analogies between the brain and computers. To hitchhike on this analogy, the predominate thrust of broadly available educational delivery systems and measures of educational accomplishment is to treat the brain as an information retrieval system rather than to consider programming as the significant function. The task of programming this brain is the task of education. Our problem is that we do not know, in a specific way, what programming is necessary for children if they are to survive in a future that is changing, unpredictable, and unknown.

Many of the problems that schools face today result from the romance with early developments in scientific management. These principles and concepts were developed in industrial management and became the conceptual bases underlying school operational procedures, and the procedures gained in priority over our beginning behavioral science research on the nature of being human and on the nature of learning. The hold has become so tight that much of educational research today assumes the validity of school administrative requirements and seeks accommodations to them.

It should be obvious, however, that we cannot develop the creative potential of people in the same way that we produce deodorants and soap. Ironically, business and industrial production today are more oriented toward developing climates for human fulfillment than is education because survival in business is dependent upon success in the marketplace. In education, much of the setting of curricular objectives, instructional objectives, classroom practices, school organizational patterns, and the like put primary emphasis on the smooth functioning of the organization rather than on the conditions required by the organism. This emphasis has continued unchallenged largely because education functions as a public monopoly that is relatively nonaccountable to its constituency and because the children in our society are without both power and rights.

One way to set about a realignment is to make schools accountable for the performance of their pupils. I am not an economist, but it seems to me that American technological success is in great part based upon the successful utilization of capitalism. Not that this is without its problems; witness the concerns of consumer groups and the pollution of the environment. However, it is the best we have come up with and it does provide for relatively automatic feedback and measures of success. It is only through such accountability and feedback that we can make educaton responsible, as Don Davies (1970) has emphasized.

The virtue of accountability is shown by developments in the field of adult education. Educational patterns for adults have departed radically from the models currently in vogue in public schools largely because adults would not respond to or sit still for the kind of information processing that usually goes on. The whole human potential movement, which has a healthy respect for the infinite variety and complexity of the human mind, aims for the development of man's creative capacity and implicitly suggests that most of our concerns are not with promoting human development but, rather, with the operational aspects of public schooling.

The pervasiveness of the operational aspects of public-school administration makes the training of personnel an extremely inefficient way to foster change. Trained people need organizational environments that endorse and sustain their dispensation of professional skills. They need organizational environments that are growth-producing to them as individuals. Bruno (1968) studied teachers of emotionally disturbed children and found that the teachers who did well with children were those who left the field within several years while those whose performance and practices were less than desirable remained for longer periods of time.

Observing that individuals reported benefits from a wide variety of experiences designed to improve their behavior and psychological well-being, Farson (1969) noted their subsequent status and found that the gains were neither observed by others nor sustained back in the subjects' original environments. This finding prompted him to underwrite the need for social architects to renew major social institutions along the lines of those characteristics found in environments that promote human potential.

The Current Crisis in Special Education

The crisis in special education comes in part from a discrepancy between contemporary theory, research, and conceptualizations on the one hand and current practices on the other, and in part from an awareness of the unintended consequences of many practices and actions engaged in with the purest of motivation. As Pogo said, "We have met the enemy and it is us. . . ."

A raft of resolutions reflecting these concerns were adopted at the 1969 Convention of the Council for Exceptional Children. Ideas related to these issues were summarized by Reynolds (1970). A Policies Commission was established to study the issues and to report back to the membership at the 1970 Convention in Chicago. The Council for Children with Behavioral Disorders, a division of the C.E.C., at its 1969 meetings adopted the following statement and presented it to the C.E.C.:

We believe the following to be true, that the values and practices of professionals concerned with children produce schools which:

1. Deprive all children of the experience of self-fulfillment, causing them to fail in school, to be excluded from school, to become impotent in education and society;
2. Create and maintain racist, and otherwise dehumanizing values in society; and
3. Use labels which place responsibility for failure on the child, his parents or on other factors unrelated to his school experiences.

We further believe that Special Educators have allowed themselves to be used to perpetuate these means of harming children through practices which shield American education from its failures.

However, we believe that C.E.C. and its divisions have permitted themselves to be used as one of the special arrangements for relieving individual and institutional guilt and responsibility. Now, therefore, C.C.B.D. calls upon the C.E.C. to:

1. Seek a definition of exceptionality that is educational in its origin and conception, and in its diagnostic and remedial implications.
2. Strongly affirm the inadequacy of the traditional special education model of remediation, and actively affirm the need for the development of a new model that involves the total system and all children.

Although this statement was not adopted by the parent organization, the Council for Children with Behavioral Disorders is considering actions based upon its assumed validity. The statement, reflecting concern for injustices to children generally, is an outgrowth of a new consciousness that surfaced from the ferment of the civil rights movement, school integration, and the education of the inner-city child.

It is at once obvious that many of the attempts to translate special education to the inner city are blatantly racist and based upon a body of knowledge that is either biased or nonexistent. The controversy around Jensen's (1969) paper suggesting different learning styles between whites and blacks, and the recommendation to use methods developed for teaching brain-injured children are examples.

Barbara Sizemore (1969) has observed that attempts to diagnose deficiencies in ghetto children are akin to our knocking over a fish bowl and being puzzled by the abnormal behavior of the fish out of water; rather than simply putting the fish back in the bowl, we try to determine deficiencies in the fish to explain its behavior and to suggest means for remediation.

Sarason (1966) made the same point in what he called the "Grem-

lin Theory." When children do not adapt to the educational menu schools provide for them the schools engage in a series of procedures to determine the specific, responsible "gremlin" in the child. Thus we have the "gremlin" of mental retardation, the "gremlin" of emotional disturbance, and so on. Johnson (1969) directed attention specifically to this state of affairs from the viewpoint of the Black experience. How did we reach this state in which the social-organizational needs of a public institution are promoted at the expense of the population it was created to serve?

A large part of the responsibility must be assigned to the application of early principles and conceptions of scientific management to a human endeavor. Responsibility must be shared by humanistic attempts to include the handicapped among those whom schools serve. In its early days, American public education was not meant for all children, nor were opportunities for meaningful social and vocational participation dependent upon completion of high school. Both factors result in what may be best described as projective retrospection, man's tireless pursuit of the problems that grow out of his solutions.

The Interface of Regular Education and Special Education

Special education by definition is concerned with the children regular education cannot adequately serve. Any change in regular education brings about change in special education. Special education may be seen as consisting of a body of skills that if possessed by regular teachers would improve their performance. It might also be seen as consisting of a set of values and attitudes that would be well translated to the regular enterprise.

For a strategy whereby special education training might benefit regular teachers, much has been made of the body of knowledge—the skills and the technology—that could improve the performance of regular teachers with handicapped children. My preference would be to underplay this aspect of special education but to emphasize the values and attitudes toward children that characterize the field. Special education is tuned in to individual differences, to relating to children as individuals, and to belief in the fundamental worth of each child. Whether or not regular teachers share these values is not so important as the fact that, too often, the ways in which schools are run serve to deny the existence of these values. Regular teachers are concerned with groups of children (even when they individualize); and as one moves from pre-primary through the elementary school to the secondary school, teachers become more identified with their subject matters and academic discipline. The student's individuality is sacrificed on the altar of academic content. A system of rewards and punishments is designed to force the student's engagement. Excellence becomes

the basis for the new elitism, and intellectual fascism is endemic. Commitment to excellence is at the expense of competence so that the few get the goodies and the many become lost.

With another kind of regular education– one that recognized human diversity and viewed with respect the unknown capacity of the human brain, an education that was dedicated to the promotion of joy, truth, and compassion—regular and special education could join hands and become partners.

Problems in Effecting School Change Through Training

If the goal of better serving handicapped children in regular school programs is to be achieved, attention must be given to much more than the training of regular school personnel in the methods and techniques of special education. Such an approach assumes that the success of special education with handicapped children is largely dependent on the utilization of specialized techniques. While they are important, there are other considerations of importance. Mention has already been made of special education's concern for individual children and the implications of this concern as it relates to values and attitudes. Another important consideration is the model or context in which the special education program represents a convenient, acceptable way of abdicating responsibility while appearing to be in the best interests of the children. Finally, much of special education training is related to credentialing and certification. The relation of certificate requirements to necessary competencies and skills is based on deduction and expert opinion rather than on empirical data. Thus the selection of elements of special education training for application to regular school personnel requires that careful distinction be made between training that increases competence and training that serves credentialing.

Training is necessary but not apart from the requirements of specific service programs. Training programs must often emphasize what is needed to assume a particular professional role. Specific service programs often require highly unique skills in particular areas for the service to be effective. To achieve maximum results, both should be tied together. There are numerous instances in which innovative programs have failed because the personnel to implement them did not receive the training necessary to sustain their new duties. There are also many instances in which training bears only a minimal relation to the demands of a particular program.

Training is necessary but it would seem that specific service programs should dictate the training needs and the federal government should support both programs and training activities. It is interesting to note in this regard that the role of the federal government has been inconsistent. In the area of the handicapped, it has provided training

support for personnel but not program support for handicapped children. Large-scale program aid for schools came with the Elementary and Secondary Education Act (ESEA). Under Title I of ESEA, training received little or no emphasis, but funds were provided to improve the education for poor children. It was therefore not surprising that several annual advisory commission reports on the program's operation suggested that the funds have had but negligible influence.

Insofar as the handicapped are concerned, the assumption seems to have been that if the federal government supported training activities, then, as trained manpower became available, services to children would expand. The services are dependent on trained personnel for their operation and the federal government's role was to increase the availability of trained manpower. One weakness in the approach is related to the number of specialists required to serve the population in need. Given present funding and anticipated increases, Gallagher (1968) estimated that it will take until the year 2064 to train the needed number of teachers of disturbed children.

Tied as they are to legislation, federal programs are often inconsistent. ESEA initially supported school programs but it did not emphasize training. The handicapped children's legislation supported the training of personnel but not school programs. The point to be made is that both training and program support are necessary to achieve significant change in school practices. New programs without trained people become little more than interesting exercises in administrative rearrangements and trained people without programs that can use their skills come to perform in keeping with existing social norms or move on and go into something else. That trained professionals can behave with inhumanity toward their clients, and that training alone is not the answer, is amply demonstrated by Wiseman's films, *The Titticutt Follies* (1967) and *High School* (1968), and by Blatt and Kaplan's *Christmas in Purgatory* (1966). Institutional norms must support and encourage the behaviors developed through programs of training.

Another subtle relation exists between training and direct service, particularly if the service is meant to be new, experimental, and innovative. Project Re-ED, for example, selected outstanding students and began its training program (with support from the National Institute of Mental Health) one year before the two experimental Re-ED centers were to open. Here again, the assumption was that professional training is the key ingredient and out of it emerges sound programs. Indeed they did, but with the benefit of hindsight, it now appears to me that the staging was reversed. It would have been much more efficient to select outstanding candidates to begin the operation of the centers first in keeping with the innovative notions that characterized the project, then, out of the experience and the emerging pro-

gram, training needs could be derived and discovered and thus serve as the basis of a program of training for new personnel.

A Suggested Strategy

When faced with a difficult problem, it is often helpful to back up to gain perspective. Therefore, in addressing oneself to the question of how to make regular educational programs better serve more handicapped children, we are asking that the range of individual differences served in regular classrooms be extended. Rather than emphasize handicap or disability, the key here is the difference or deviation from that which is expected or allowable in regular school programs. Viewed in this way, the sociological concept of deviance may be helpful. The concept directs attention to the existence of a set of supported norms beyond which behavior is not permitted.

This concept is not too far from the general operational procedures on which special education is based if one defines special education as concern for delivering services to children whose needs are such that they cannot be met through the ordinary course of regular education. The process of selection, identification, and diagnosing for service may be seen as comparable to the detection of norm deviation. Thus, if one were to propose that this program devote its attention to *the problem of school deviance or school disorder* and have as its mission *an increase in the range of deviation* capable of accommodation through the normal channels of regular education, it would be possible to replace the medical, diagnostic model with one that is social-system based. Walter Schafer's (1965) model may be appropriate here, but there may be others and still others may be generated. Schafer classified school deviance into three categories relating to norm violation in the schools,

1. lacking in presumed necessary ability,
2. lacking in secondary or derived skills, and
3. lacking in appropriate and necessary behavior attitudes and values.

The implications of these categories and elaborations of their applications are available in Schafer's paper.

Grants should be made available to public schools that are willing to revise their special education by incorporating it under a broader definition of regular education in association with universities that are willing to provide training opportunities for needs as they develop. Obviously, the plan will not take care of the more extreme cases, but it should make provisions for these youngsters. The first step could be to develop procedures that hold promise for turning out the desired results. We are then in a position to ask what are the training needs of personnel who can support and energize this system. Thus, the supportive capacity of the university initially would be to provide

on-the-spot, in-service training opportunities for those needs that grow out of the experience of making the plan operational. Funding should first support the change; hence, primary funding should go to local schools. Initial personnel would be people who have demonstrated success in providing for a wide range of deviation within their classrooms. In these redefined roles, they would then become aware of what new training they need.

Training should supply the attitudes, values and skills that grow out of the needs developed by these pioneers—out of the experience of providing inservice training for the people on the line. What is tested and found valuable then can be distilled and applied to new personnel. At this point, the nature of the organizational structure necessary to support the new programs will be known, and it will be possible to look at people from the point of view of individual and personal characteristics that might relate to self-realization in such an environment in addition to the necessary skills. It seems to me that only then can we train people in any broad, formal way for the kind of program that develops. Such a strategy would be greatly enhanced by provisions that would make possible the translation of the program to other institutions based upon its demonstrated success.

For any program to be funded, adequate information to assess potential success should be presented on (a) the design for accommodating increased deviance, (b) the organizational climate to support and encourage the behavior necessary to implement the design, and (c) the training resources necessary to supply needs as they develop, to institutionalize them subsequent to their assessment, and to alter them in relation to changes in programs.

A component might well be included for the school leaders, board members, and administrators to explore together some of the more recent behavioral science findings relating to the creation of organizations for growth.

Funding should be for a long enough period to permit the assessment of changes in children and to determine the extent to which handicapped children are better served under the proposed plan.

The curriculum should give equal emphasis to developing joy, truth, and compassion, and as much attention should be given to process as to content. Process in this context means developing in children those skills necessary for them to assume responsibility for their own learning, the ability to remain life-long learners, and the personality characteristics necessary for survival in a rapidly changing, temporary society. Also, because of the varieties of learning style, the variability within the human organism, and the unknown elements and limits of human accomplishments, elements that characterize both "hard" and "soft" schools should be readily available (in the architecture, in the program, and in its implementation).

When the focus is primarily on training, the assumption is that a well-trained person will do his "thing" anywhere. Unfortunately, we are not yet certain what that "thing" is outside of a known organization climate and a known program thrust.

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Increasing Educational Services To Handicapped Children In Regular Schools

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The major assumption underlying this paper is that it is desirable to provide quality education for as many handicapped children as possible within regular schools. Note in this assumption that the service to be provided is quality education—not just custodial care—and that it is recognized that regular schools cannot meet the educational needs of all handicapped children. The assumption can be supported by a consideration of both the immediate and long-range benefits to a handicapped child. Attendance at a regular school improves the probability that he will make an effective adjustment to his age-mates and to adult society when he enters it. Similarly, the opportunity for a "normal" child to learn to work and play alongside a handicapped person reduces the tendency to stereotype handicapped children. Further, a regular school benefits from the presence of handicapped children, as for example, in the additional services often made available when handicapped children are assigned to a school. A more important benefit, but less tangible, is the impact of the presence of handicapped children on the social system of a school—on the norms, values, and roles within the school. Attendance of handicapped children in a regular school is, therefore, an advantage to the handicapped children, to their peers, and to the school as an organization and social system.

In view of these advantages, it might be asked why so many handicapped children have been removed from regular schools—or never permitted to enter. The practice of excluding handicapped children from schools developed at a time when it was assumed that individual differences within a class group should be reduced to a minimum. Accordingly, various plans for homogeneous grouping, such as tracking, were developed and children at the extreme ends of the continuum, particularly at the "lower," were never permitted to enroll or were removed from regular schools. Since teachers instructed as though all pupils in a class were similar, elimination of children who were "different" seemed to make sense.

The segregation of handicapped children has had unanticipated consequences. Some stem from the tendency to assume that once a problem is described and defined it is solved. Operationally, we forget that a clear statement of the problem is only the first step in John Dewey's problem-solving method. Too often, diagnosing a child's difficulty and categorizing him results in a feeling that he is no longer

the responsibility of the regular school. It might be added, parenthetically, that handicapped children are not alone in suffering from this fate. Educators are often satisfied with poor performance after they place a child in the category of culturally deprived and they rationalize, "After all, what can you expect; he's culturally deprived."

The situation has changed. Today, teachers are more concerned with making provisions for individual differences and, fortunately, they are better able to cope with these differences in regular classrooms. Increasingly it is recognized that every child fits into a category of one—his own category. The handicapped child is not so much of a problem to a teacher who recognizes that every child is different and who, therefore, uses an individualized approach to teaching.

The foregoing arguments could be interpreted as justifications for eliminating special education programs per se and moving all handicapped children into regular schools and regular classrooms. To do so would be a mistake; there will always be a need for specialized learning environments for some handicapped children. Instead, educational opportunities for handicapped children in regular schools should be improved and selected handicapped children should be moved into regular schools as soon as their needs can be met in that environment.

In order to achieve these goals, some of the practices and ideals from special education should be moved into regular schools together with the handicapped children. One practice from special education that is already having an impact on regular classes is individualization of instruction. A second practice that needs to be copied is the intensive case-study approach that concentrates the resources of various disciplines and from several agencies on an individual child. It is easier to transplant practices than ideals. One could wish that as handicapped children move from special into regular schools some of the commitments to children and their education which are shared by nearly all special education teachers, could become a part of the value system of more teachers in regular schools.

Improving Educational Programs For Handicapped Children

The preceding discussion indicates that regular school programs should be modified to serve handicapped children better. The extent to which such programs can serve handicapped children will depend upon four interrelated and interacting systems: The first two are concerned primarily with structures and processes—the curricular system and the administrative system—and the other two are concerned with people—the teacher system and the administrator system. The interrelationship of these four systems is apparent; for example, the

curricular system is affected by the administrative system, the teacher system, and the administrator system. Improvement in programs for handicapped children require complementary and supporting changes in all four systems. Thus, any program to help teachers and administrators to change must consider needed changes in the curricular and administrative systems.

Curricular system

This system includes a plan for intended opportunities for learning engagements for children. It also encompasses technological systems, including various instructional materials. An important determinant of the quality of educational programs for handicapped children is the extent to which individualized instruction is provided for in the curricular system. To achieve an individualized program in regard to any particular objective requires a study of individual pupils that will reveal the following factors:

1. The extent to which a pupil has already achieved the objective.
2. The extent to which a pupil has the necessary background information for achieving the objective.
3. The pupil's psychological attitude toward achieving the objective.

Fortunately, computer data banks facilitate such studies since they make it possible to accumulate and retrieve accurate information on each child. Given adequate information about a child, the teacher is able to design an individualized program. However, this type of diagnostic and prescriptive teaching depends upon an adequate supply of appropriate instructional materials.

Implications. Clearly, the needs of handicapped children are met best when a teacher individualizes instruction, providing he has material that is appropriate for the child. For example, a teacher cannot provide an individual reading program for a blind child unless he has the necessary instructional material. Special materials are needed also for mentally retarded and for some emotionally disturbed children.

One way in which material for handicapped children can be made available to teachers in regular classrooms is through a project developed at the State University of New York at Buffalo (Harnack, 1969). This project has stored a number of resource units on computer tape. A teacher who wishes to use the service selects the general area for study and then selects, within that area, several objectives for the group as well as for individual children. In requesting material for individual children, the teacher checks certain characteristics describing them. After the teacher submits the request, the computer prints out a resource unit suggesting materials that might be appropriate for the group and for the individual students.

The originator of this system, Robert Harnack, has invited others to share in the venture with the understanding that participants will

submit material for storage in the data bank. It is anticipated that a number of centers will be established throughout the United St
This computer system holds promise for the education of handicapped children in regular schools. Suppose that for each resource unit, materials appropriate for handicapped children were identified or, if none existed, material were developed. Then when a teacher in a regular school checked the type of handicap a child had, he would be referred through a computer print-out to appropriate materials.

Administrative system

The administrative system is complex since it consists of many interacting elements and subsystems. Three aspects of the administrative system are particularly germane to the topic of this paper: the assignment of pupils, deployment of teachers, and provision of resources to teachers. Some administrative organizations by their very nature provide greater capacity for the education of handicapped children than do others. The capacity is related to the principle of individualized instruction: In general, the more an administrative organization facilitates individualization of instruction, the greater is its potential for meeting the needs of handicapped children.

Implications. A number of organizational structures are now being tried in an effort to increase individualized instruction—flexible scheduling, differentiated staffing, and team teaching, to name but a few. Each plan should be examined in relation to its potential for meeting the needs of handicapped children.

In some instances, an organizational pattern might be modified the better to meet the needs of handicapped children. For example, instructional teams could be organized so that one of the teachers had special training in one area of handicap. In a large school, two or three different specializations might be represented on different teams. Within a cluster of schools, all of the principal areas of specialization could be represented. Handicapped children could then be assigned to teacher teams. For example, with appropriate specialists, seven or eight blind children could be assigned to a group of 120 children under the direction of a five-teacher team of whom one teacher would have special training in working with blind children. Under this arrangement, blind children could be grouped with sighted children for most activities but provisions would exist for individual instruction and, occasionally, for work as a group.

One other aspect of an administrative organization is worthy of special study, namely, the provision of a special resource center for handicapped children. Often teachers are reluctant to have handicapped children in their classes because they do not know how to meet their needs. An administrative organization that provided a center staffed with specialists who could help teachers understand handi-

capped children, assist in planning programs for such children, and provide instructional materials would be of considerable benefit.

Teacher system

In contrast to the curricular and administrative systems, the teacher system is composed of people. Because of the complex interrelation among these systems, the best designed curricular system will break down unless it is supported by an appropriate administrative system *and* operated by effective teachers. Similarly, well-prepared teachers cannot meet the needs of handicapped children in a lockstep type of curriculum.

Implications. Clearly, central to the provision of improved opportunities for handicapped children in regular schools is an effective preservice and inservice teacher education program. Through such programs teachers should,

1. learn the skills and gain the knowledge needed to conduct individualized instruction for all children in a classroom;
2. develop a knowledge of handicapped children that will enable them to diagnose learning needs and prescribe appropriate engagements; and
3. develop attitudes toward handicapped children that will enable them to approach their task as professionals with compassion, rather than as "do-gooders" with pity.

Note that the first goal focuses on individualized instruction for all children. Teachers need to learn how to gain the information about pupils outlined in the section on curricular systems. A good example can help prospective teachers to learn. Usually, it is while they are attending a large lecture-type class that prospective teachers are told they should individualize instruction! Could preservice and inservice education programs incorporate individualized instructional materials designed to help prospective teachers achieve specific objectives? The State Department of Education in Florida is developing a series of such materials ("Mini Paks") for the inservice education of teachers.

Two particular problems must be faced in attempting to provide prospective teachers for regular schools with information on handicapped children. First, what information should be included? Second, who is to teach it? So much is known about various handicaps that specialists spend a lifetime studying just one type. How can enough knowledge be given to regular teachers to enable them to work with children who have different types of handicaps? It should be recognized that teachers in preservice education cannot be given this much knowledge about various categories of handicapped children. Here is one reason why resource persons who are well trained in particular types of handicaps should be available to assist teachers. Two guides may help in deciding what information to teach: First, provide enough

background so a teacher can continue to learn on his own and with the assistance of resource specialists, and second, provide enough information so teachers can work with handicapped children with some confidence.

Once the knowledge to be taught has been determined, the teacher-educator faces the second problem: Who is to teach it? Only a relatively few teacher-education colleges have experts on various types of handicaps on their staffs. And some of these experts are so specialized that they find it difficult to communicate with teachers preparing to teach in regular schools.

One approach to solving this problem is to develop some instructional units that might be available for use in any teacher-education program. These units could consist of case study materials, videotapes of handicapped children in and out of school, video- or audio-taped lectures, books and periodicals, self-administered pretests and posttests, and a study guide. Eventually it might be possible to include a computer component in the system. Although such a series of instructional kits could be developed on a national or regional basis, they could be "serviced" by one university in each state. Part of this service could include sending experts to various college campuses for intensive conferences or seminars. Once such material is developed, it would be useful for inservice as well as preservice education.

The development of positive teacher-attitudes toward handicapped children is a third goal of teacher-education. Admittedly, this goal is closely associated with the first two. As teachers learn how to individualize instruction, the providing of appropriate learning experiences for handicapped children will be less difficult; and as teachers gain knowledge about the children, their attitudes toward them may improve. The use of the words "may improve" instead of "will improve" is deliberate; whether or not increased knowledge leads to greater acceptance depends upon the knowledge transmitted, how it is transmitted, and the attitudes of those who are doing the transmitting.

Rather than assuming that additional knowledge will result in improved attitudes, some deliberate planning for achieving this goal is needed. Attitude tests should be administered prior to and following learning experiences. Field trips should be arranged to enable prospective teachers to view handicapped children who are learning in regular schools. If no good illustrations are readily accessible, a film or a video tape may be used. Prospective teachers should be encouraged through group sessions to explore their own and other people's attitudes toward handicapped children. Finally, prospective teachers should have an opportunity to work directly with a few handicapped children under supervision to assure that the learning experience is good for the children as well as for the prospective teacher.

Administrator system

Administrators through their understandings and attitudes will influence the quality of educational experiences provided for handicapped children in regular schools. Does the administrator believe that handicapped children can learn in a regular school? Indeed, does he believe they should attend a regular school or does he see such children as somebody else's responsibility?

Implications. The administrator's need for information on handicapped children is similar to that of teachers. Thus, some of the material developed for the preservice education of teachers (described previously) can be used for the preservice and inservice education of principals. Administrators also need to develop attitudes toward handicapped children portrayed as desirable for teachers; again, some of the same procedures used for teachers may be used for administrators.

In addition, administrators need some knowledge of alternative provisions for serving handicapped children in regular and special schools. Further, administrators need to gain an understanding of the handicapped child in the community. They need to understand and appreciate the depth of concern of the handicapped child's parents for the child's future. They also need to be familiar with various community groups that may provide services to handicapped children and work for coordination of these services with the education program in the schools. Administrators need to understand what employment opportunities are open to handicapped youth; indeed, they need to know what they can do to expand these opportunities.

Parental attitudes can be best learned through direct experiences; where not possible, video tape and motion pictures may help to communicate parental concerns. Carefully selected literature, both fiction and nonfiction, can provide insights into parental attitudes toward their handicapped children.

For the most part, the nature of community agencies and employment opportunities for handicapped children will vary from community to community. Therefore, an administrator must gain this specific knowledge once he is assigned to a community. In advance of the assignment, however, he can learn the importance of having and using such knowledge and he can learn how to gain such knowledge in any given community.

Conclusion

The improvement of services to handicapped children in regular schools will depend upon influencing four interrelated systems—curricular, administrative, teacher, and administrator. Achieving this improvement requires that those concerned with the education of handicapped children move into the mainstream of teacher-education

for regular schools. Often, special education departments are somewhat isolated, and not always by choice. Too many educators were content, indeed eager, to have special programs established and thus to be relieved of the "load" of handicapped children.

Similarly, it is desirable that some work on handicapped children be included in all administrator-preparation programs. To this end some cooperative ties with the University Council for Educational Administration (U.C.E.A.) should be sought. In addition, state certification requirements for administrators might be studied with the intent of assuring that every administrator has a basic knowledge of handicapped children.

Finally, the matter of categorical aid for the education of handicapped children might be studied. In an effort to build special education programs, financial encouragement was given to school districts to establish special classes and schools. Now new ways must be developed in some states to reward school systems that are providing *good* programs of education for handicapped children in regular schools.

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Categories And Variables In Special Education*

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The Fallacy of Categories

In all of society there is a rising revulsion against simplistic categorizations of human beings. The field of special education has been especially vulnerable to attack because in defining itself it has tended not only to list various "categories" of exceptional children but to use negatively loaded terminology to do so: the mentally *retarded*, the visually *handicapped*, the hearing *impaired*, the emotionally *disturbed*, and the socially *maladjusted*. The use of such categorical language has been especially evident in legislative and parent groups and in teacher education and school programs.

A number of problems may be created by the categorizing of people and programs. (a) There is a tendency to stereotype or to ascribe characteristics of the group to individuals. The practice, crude at best, is frequently in error and prejudicial to the interests of the individuals. (b) The category labels tend to become stigmatic and to be attached indelibly to the individuals; sometimes the child's label becomes an excuse for poor educational programs. (c) People who work with exceptional children may associate the categories with negative expectations and then carry them into their relationships with the children and into curriculum planning. A degree of diagnosogenic or prophecy-fulfilling inadequacy in the child's development may result. (d) An assumption is made frequently about an easy isomorphism between categorical and educational classifications. For example, it may be assumed that all partially sighted children should read expanded print—which just is not so—or that because a child is "mentally retarded" he should get the "primary life needs" curriculum —again, not necessarily so.

Researchers who contrast *groups* of handicapped children with *groups* of so-called normals often add to the problem. On the basis of such studies, the mentally retarded, for example, have been described as cognitively rigid, unable to think abstractly, showing stimulus trace or cortical satiation abberrations, exhibiting disassociation of verbal and motor systems, and deficient or abnormal in many other ways. One could easily come to the absurd conclusion that a sharp discontinuity in mental ability occurs somehow so that people with IQs of

* A modified version of an address given at Augustana College, Rock Island, Ill. in 1968, and of a still earlier presentation made at the University of Maryland.

76 have entirely different characteristics from those with IQs of 75. Comparable problems abound in other areas of special education as well.

It is very unfortunate that anyone should ever think of children and plan for them mainly in terms of categories although, undoubtedly, the extent of such practices may be somewhat exaggerated. We are all familiar with the caricature of the itinerant psychometrist, WISC kit at hand, who categorizes a child as mentally retarded after a 50-minute test and recommends special placement in a school about which he knows nothing. He represents a grotesque oversimplification of professional service that, hopefully, has no basis in fact. Children are tested carefully and extensively in as many areas as possible. Certainly the examiner may phrase his conclusions in categorical language but when he does so it is because he is using "shorthand" for a complex set of variables.

The Flexibility of a "Variables" Approach

The perception of children through variables emphasizes the continuous differences among them on certain dimensions and permits us to try to quantify the differences in some way. Most of the variables that we find interesting in studying exceptional children are of interest also in the study of other children, which is to say that the distributions are continuous and include both exceptional and normal children. This continuity suggests that even if we attend to only a single variable so-called exceptional children are children "only a little more so" in some one or several aspects and not special types. Uniqueness is a function of variables.

The convenience of using categories as a "shorthand" need not be eliminated if they are recognized as representing complex sets of variables. The category "mental retardation," for example, is a general term referring to a wide range of kinds and degrees of attenuation in cognitive development. Recently, so-called "creative" children have been discussed as a kind of category or typology yet measures of creativity show continuous distribution. Most blind children are not totally "blind" but have different degrees of sight. An analogy can be drawn between the variables in one of these categories and the variables with which a weatherman deals. Temperature, barometric pressure, wind velocity, and cloud cover—his variables—are not static but combine uniquely at any moment over any place. "Weather" in itself is an abstract term; it takes on concrete meaning only in terms of the variables of which it is composed at a specific time and place. And so it is with the categories of exceptional children: mental retardation, blindness, and creativity, for example, are abstract terms until they are given concrete significance by the particular constellation of variables in a particular child. Thus, although categories may be con-

venient generally in working with individual children, the emphasis should be on variables and particularly on those variables that meet the test of educational relevance.

Two Kinds of Variables

It is useful, in considering their educational relevance, to distinguish between two general classes of variables—*source* or surfacing variables and *decision* variables. Most of the traditional variables dealt with in special education, such as those relating to mental retardation, vision, hearing, and emotional disturbances, are what I call *source* variables. They are the sources or indicators of educational problems. While they may serve to alert us to problems or to potential problems, they do not indicate appropriate educational procedures. Consider, for example, the child who appears in school regularly with many bruises; it is clear that something should be done for him because a problem has surfaced. But it is not clear whether the child is being abused by a parent, is showing the adverse physical effects of learning to skate, or is mutilating himself. The bruises merely evidence that something is wrong; they offer no clue to what should be done about them. They are *source* variables, not *decision* variables.

As another example, consider very low visual acuity. Certainly it is a problem that can be viewed as a quite reliable source or indicator of special education interest. But the poor sight in itself is not a very good indicator of what educational procedures should be used with the child. The relevant variables in deciding upon the educational procedures might include tactual discrimination abilities at finger tips, intelligence, age, motivation, parental desires, and the low-vision aids available in the local schools. Similarly, mental retardation may be a child's problem but judging whether he is likely to profit from a specialized school program may depend more upon the sociopsychological climate of his home rather than upon the immediate level of his cognitive functioning. Some of the *decision* variables, it should be noted, do not refer to the child but to his life situation.

The difference between *source* and *decision* variables is that the first are the basis of identifying the problem and the second are the basis of making the educational decisions. A significant consideration in the latter process is that when alternative school procedures are available it is not necessary or even wise to begin placement procedures by looking just at traditional categories. The variables that are demonstrated to be useful in the decision-making may also be the starting point for organizing school programs. Clearly, the variables on which decisions are based will change as new methods of education are invented and, thus, one should not think of *decision* variables in static terms. Less obvious but even more important in this decision framework is the fact that variables that yield simple predictions of school

success (zero-order predictions) do not always help in making educational decisions for a child.

Classification for Educational Purposes

One of the assumptions of the preceding discussion is that schools should be able to present alternative procedures and curricula to accommodate all children. It is necessary, consequently, to allocate the children among the different programs or, in other words, to classify them. To develop this point of view, it may be well to spell out the purposes of educational classification.

As a start, it may be useful to consider the purposes of classification in settings other than the school, which sometimes gets in the way of our thinking. Zubin (1967) cited three purposes of the diagnosis and classification of what he terms behavior disorders: (a) to search for etiology; (b) to make a prognosis; and (c) to select a therapy. Physicians and clinical psychologists tend to be oriented to these purposes. In anticipation of the discussion that follows, it can be stated immediately that none of the three is the chief concern of the special educator yet our information systems tend to become distracted by them.

Certainly it is clear that classification merely according to Zubin's first purpose—etiology—is not a very useful approach in education. The cause of poor sight gives little help in deciding how one should teach a child. Similarly, it may matter not at all in educational planning whether the attentional problems of a child stem from brain injury or from other causes. Etiological variables may be useful in education but only if they are considered in the context of the educational decisions to be made and not as an end in themselves.

Similarly, prognosis has limited usefulness as an educational approach. Educators are employed to influence children's learning and not simply to predict it. One of the great errors in education is that general or broad-band variables such as IQ-test results, which predict academic achievement moderately well in almost all situations, are over-used in decision-making. Precisely because general intelligence-test results predict learning and performance in many situations, they are virtually useless for making choices among educational situations. Educational decisions require attention to variables that produce interaction effects with educational treatment, that is, variables that help us *to make a difference rather than a prediction*. This requirement is far beyond the usual fare of psychological reports often written in simple terms of "capacity," "expectation," or "underachievement."

Zubin's third purpose—the selection of treatment—cannot be dismissed lightly in the present context because an important purpose of educational classification is to select treatment. Two general classes

of treatments should be distinguished, however. The first is oriented to negative criteria, in which case we use terms like prevention, cure, or amelioration, and the second, to positive criteria, in which case we use terms like development, competency, or achievement. In the second case, the concept of prevention is not meaningful in any full sense.

Educational treatments are always positive. They are concerned with teaching and learning not with the recovery from defects or the simple prevention of problems. The educator "prevents" reading failure not by building antibodies but by teaching reading or its prerequisites with greater resourcefulness and better effect to more children. To be educationally relevant and to engage the teacher, treatment must involve development and teaching; it is a positive criterion in which the concept of prevention is superfluous. To use Bruner's term, education is a growth science. Insofar as mental health and other fields succeed in specifying positive health-giving, life-fulfilling goals and they orient themselves to pursuing such goals, to that extent there is but little disparity between their concepts and those of education. One might also predict that the more fields such as mental health become oriented to our positive criteria, the more they will find it increasingly useful to join forces with the school.

The view proposed here, in short, is that special educators should stop talking about dysfunctions, deficits, impairments, and disabilities as if they were the starting points in education and recovery from or remediation of them were the goal. Obviously, one prevents problems or creates a kind of invulnerability to insult whenever competencies are engendered, but let us keep it clear that the competencies themselves are the goal.

Thus it can be said that Zubin's third purpose of classification is not suitable to education to the extent that its concept of treatment is oriented to prevention or cure. Education in a free society is predicated upon a commitment to enhance the development of all children in definitely positive ways. Special education is concerned that absolutely no child is omitted from that commitment and it attempts to help differentiate school offerings sufficiently so that all children receive the help they need to develop maximally.

The educational classification of children proposed here makes more meaningful the allocation of children among the various instructional systems. For example, we have many different systems by which children may be taught to read; the problem of classification is to allocate each child to the system most likely to serve him effectively. Within this framework, one does not speak of children as "learning disabled" or "remedial cases" just because they require atypical methods of instruction. Furthermore, the purpose of introducing greater variety in reading programs is not to "prevent" reading problems but to teach reading more effectively to more children. To put this

viewpoint more technically, educational classification depends upon studies of children using variables that produce interaction effects with instructional systems.

Instructional Systems

The term "instructional system" refers to integrated sets of procedures and materials that may be used to achieve certain major learning goals with children. The systems are themselves complex and require definite, systematic application by well-oriented teachers. As already indicated, examples of instructional systems are provided by the several systems that can be used to teach reading. Some methods are highly oral-phonetic and others are completely non-oral; some use modified orthography in introductory teaching; and some assume and others do not assume linguistic sophistication as the starting point. There are methods that assume normal vision and ordinary libraries and others that depend upon tactile discrimination and special braille libraries. Presumably, the schools of a community should offer all systems that might be needed by any pupil.

The concept of instructional systems is wide open to the development of the future and to the many procedures now used in the schools. The field of special education is defined in terms of its responsibility to help develop and install highly differentiated school programs—many instructional systems—and to see that the related plans and decisions about children are made effectively. The particular systems for which special education carries primary responsibility include many in the category of language learning, cognitive development, psycho-motor training, socialization, and affective learning. Systems of language and speech instruction that do not assume hearing or normal auditory feed-back are also quite specialized. Similarly, methods of teaching for mobility and orientation without sight require specialized efforts. The application of behavior-management procedures to produce basic responding, attending, and exploring behavior requires specialized efforts. The offering of especially intensive preschool language instruction to children who have unusual cultural backgrounds presents its own special aspects. Similarly, the management of curricula oriented to "primary life needs" needs specialized attention. One can view the crisis teacher model as a special system for interventions in school operations to serve both pupils and teachers at times of emotional crises. College departments of special education must define the particular competency domains they wish to emphasize in order to help build highly differentiated school programs of these kinds.

It should be noted that the concept of instructional system outlined above does not use child category language. Rather, the emphasis is upon specifying competency domains and specific instructional

goals. Hopefully, allocation of children to specialized instructional systems will be approached openly with the decision always resting upon what is judged to be the best of the available alternatives for each child. One does not start or end with simple categories of children. Similarly, it is proposed that specialized teacher preparation carry labels reflecting the special competency domains rather than the categories of children.

The Relations of Special and Regular Education

To the maximum extent possible, of course, special educators seek to help develop the attitudes and skills necessary to accommodate pupils' unusual needs within the regular school framework. When it is not possible to achieve the necessary climate and specialization of instruction in regular classrooms taught by regular teachers, then other special arrangements are made. But, hopefully, every special educator sees himself as a resource for his entire school and not as one who takes his own little group to some special closet.

In this framework, one can think of special education as an aggregate term covering all specialized forms of instruction that ordinarily cannot be offered by unassisted regular classroom teachers. The relation of "special" and "regular" education may be represented schematically as in Figure 1. The relatively large circle (1) symbolizes the

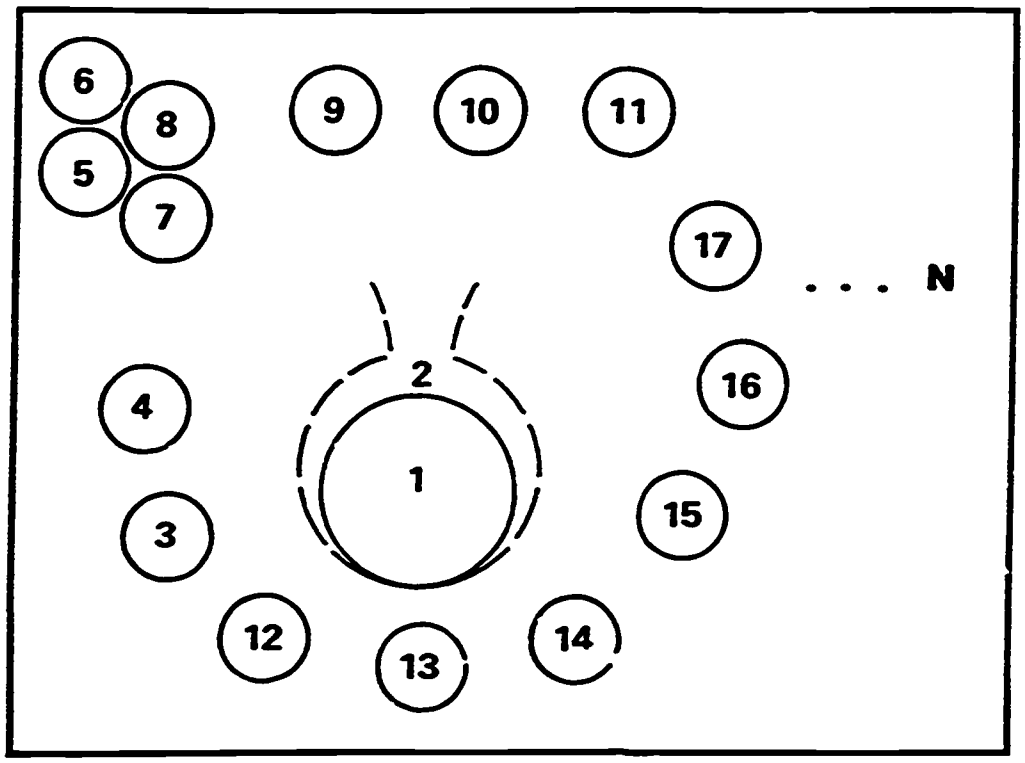

Fig. 1. The relations of special instructional systems (3 . . . N) to regular education (1 and 2).

teaching competencies possessed by regular classroom teachers. Competencies vary, of course, but the symbol is useful because regular teachers fall into a kind of modal pattern with respect to the range of their teaching resourcefulness. Clearly, for example, most regular teachers do not know braille reading methods or the Orton-Gillingham procedures but they are able to teach reading to most children assigned to their classes by using other approaches.

It is incumbent upon special educators to help create as much resourcefulness as possible in regular teachers. The dotted portion (2) of the figure tends to enlarge (1) and represents the efforts that should be made to extend the specialized abilities of regular teachers. The dotted configuration is left open to indicate continuing consultation with and assistance by specialists. Colleges and universities and special education administrators need to exert themselves to devise and implement ways through which this growth of regular teachers and assistance to them may be accomplished. The major part of this growth probably will have to come through inservice education.

All of the remaining small circles (3 . . . N) are intended to represent special instructional systems that most often are offered by specially trained personnel. These instructional systems tend to fall into certain clusters, suggesting that several of them are likely to be learned and vended by one person. For example, some teachers become quite adept in handling combinations of lipreading, auditory training, finger spelling, and special systems for language instruction without audition.

Because of the tremendous range of systems or curricula now in existence and likely to emerge in the future, teacher candidates can be equipped to handle only parts of them. Even if they could be given an introductory knowledge of all fields, it is patently clear that they could not keep up-to-date over the years in several such diverse fields as auditory training, braille, and cooperative work-study programs. Thus I think Schwartz's (1967) proposal to train undergraduates in everything from braille to specialized auditory training goes much too far. I do not prejudge, however, that teachers should be limited to a single system or a given number of systems. Indeed, pursuing an idea launched several years ago in Minneapolis under the leadership of Professor Evelyn Deno, I believe that one of the ways in which we will serve many exceptional children is by training what might be called "General Resource Teachers," who would be prepared to serve children with a variety of special needs in a team relationship with regular classroom teachers, and who would be backed up by a corps of highly specialized consultants traveling around a city or a broad rural region.

The specialized systems or aspects of the school program can and perhaps often should carry labels reflecting their characteristics. Teachers would also carry the label in some cases as, for example, the

"orientation and mobility instructor," or the "preschool language teacher." Hopefully, the tendencies of the past to label the children will be replaced by special labels for the programs and teachers of the future.

In stressing systems of instruction, it is not intended that the concern should center on technicalities of methods and materials at the expense of affective learning, motivation, or other topics. Nor is it intended in this discussion to diminish the importance of a teacher's clinical skills. All that is possible ought to be done to increase the abilities of teachers to make detailed clinical assessments of children and to develop educational programs as they are needed. Similarly, it will be helpful to have all teachers more thoroughly grounded in the psychologies of learning and individual differences. Important as these goals are for teachers' education and for schools, still they are not sufficient to meet the full range of children's needs and they do not define the field of special education.

The Allocation of Children to Special Instructional Systems

A key consideration in conceptualizing special education as the aggregate of highly specialized instructional systems is the problem of allocating specific children to the various systems. Allocation can be thought of as a special case of classification, what Cronback and Gleser (1965) call a "placement" decision. In essence, the placement decision involves maximizing the pay-off for individuals within an institution in which several alternative treatments are available (assuming that all individuals are to be retained, that is, that no selection-rejection decision is made). The traditional predictive model of the school is not useful in making the placement or allocation decision and neither is simple categorization by handicaps; rather, we must learn to interpret variables that produce interaction effects with the instructional systems. In other words, children should be placed in special programs on the basis of demonstrated aptitude-treatment interactions.

Assuming, for example, that two methods of teaching reading are available, one finds the required disordinal interaction when a variable is discovered that produces an intersection of regression lines, as is shown in Figure 2. At about the point of intersection, noted by the dotted line, it would be best to shift from Method 1, used for low-scoring pupils, to Method 2, used for high-scoring pupils, on the hypothetical variable. Note especially that it is not zero-order prediction that is important for the placement decision but, rather, the disordinal interaction effect. Although this example stresses a quantitative model, the general point of view goes to the philosophical and clinical roots of special education programs. It requires a specification

of the alternative educational programs and a careful choice among them—not according to simple predictions or categories of children, but according to those variables of greater specificity that help to make the necessary decision.

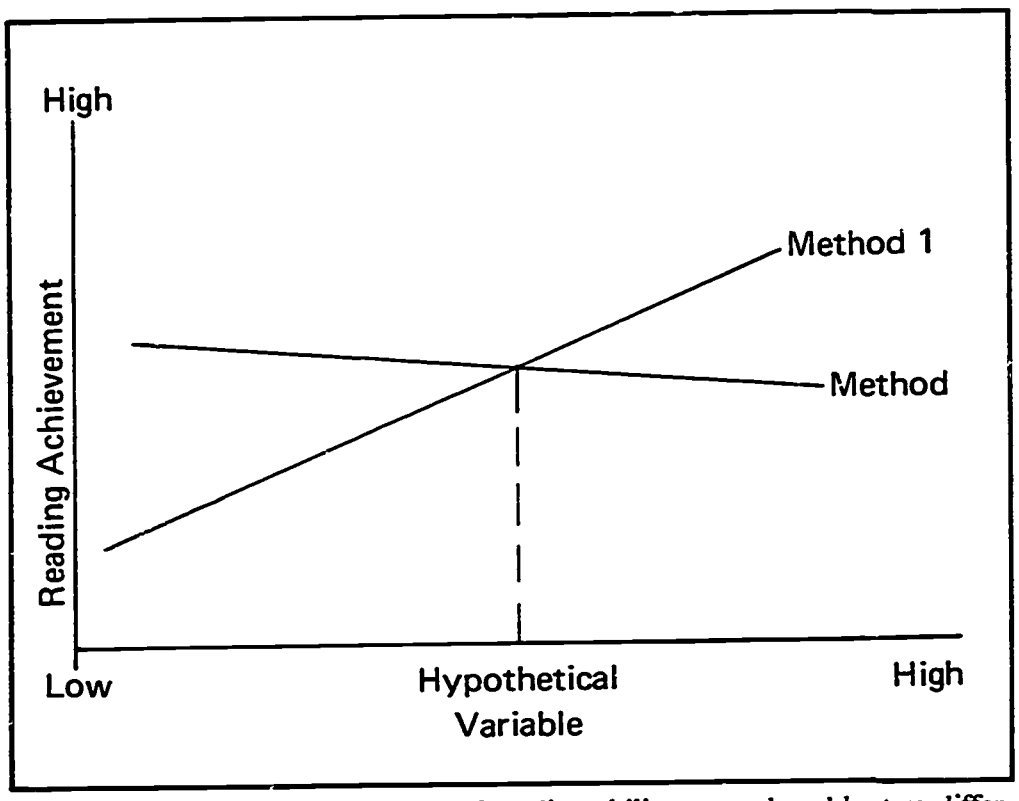

Fig. 2. Intersecting regression lines of reading ability as produced by two different methods against a hypothetical variable.

The logic of the approach is quite different from procedures now commonly used. They tend to depend upon certain broad-band variables, such as IQ or decibel loss in the speech range to make placement decisions. To put this another way, variables that produce similar slants of regression lines for all approaches do not help to choose *between* approaches. When we have learned to specify the variables that should be used in allocating children to special programs we will of course, have something quite unlike the present simple systems of categories of exceptional children.

There is a great need for research that shows how aptitudes and instructional systems can be joined optimally in educating exceptional children.* School psychologists, teachers, social workers, counselors,

* Relatively little research has been conducted according to Aptitude-Treatment Interaction (ATI) models. For lack of space, no attempt at review of the research is attempted here. The ATI point of view applies to clinical procedures as well as research.

and administrators who make the decisions about children—the organizers of school programs—need to be updated in their work. A major problem in the field is to provide appropriate training for these decision makers.

It should perhaps be reiterated that the view of special education proposed here says little about administrative structure. The preceding discussion does not suggest that special education goes on only in special classes or other separated centers. On the contrary, the view espoused here is that "special" instruction should be conducted whenever possible in regular classes and otherwise with as little separation of children from normal school, home, and community life as possible. Many special programs can and should be offered through team arrangements with regular educators.

Summary and Implications

In summary, this view suggests, first, that we try to be more explicit about what special education is. The concept of specialized instructional systems is proposed with major implications for the ways we form both teacher-preparation and school programs. Second, this view suggests that we need to study children in terms of variables that aid in the making of allocation or placement decisions within a highly differentiated school system. The identification of such variables requires research demonstrating aptitude-treatment interactions. This concept of special education radically reverses present views of categories of children and special placements by categories or mere surfacing variables. It is proposed that main attention go to variables that produce interaction effects with alternative treatment systems rather than to simple description of handicaps, clearly a claim for a detailed educational definition of our problems and procedures. Some practical implications are outlined in the following paragraphs.

Special educators should define their field mainly in terms of specialized instructional systems in the schools and themselves as advocates for children who are not well served in the schools except by special arrangements. By systems I do not refer to administrative arrangements but to specialized curricula and methods that may be required by some students. These programs may need special labels, such as the lipreading program, the braille teaching laboratory, the crisis teacher, or the engineered classroom. What we then must do is see that children needing these special systems do, indeed, get them. Children will not need to carry labels and certainly need not to be considered *defective, impaired,* or *disabled* simply because the educational procedures needed are unusual.

In administratively organizing school programs, we should absolutely maximize the resourcefulness of regular classroom personnel by using teams of teachers and specialists, upgrading regular teacher

training, using resource rooms, and so forth, rather than to use segregation systems for pupils. However, even with extraordinary efforts, some specialized facilities will nevertheless continue for precipitous phase-downs on all special schools and classes. The pivotal concern should be the improvement of regular classes and not the abrupt demise of any administrative arrangement.

Training programs for teachers and other special education personnel should be made specific to instructional systems rather than to categories of children. In other words, we should train teachers of braille or of the Orton-Gillingham system, rather than teachers of the "blind" or "learning disabled." Training programs for decision-makers, such as school psychologists, should be radically revised to provide explicit orientation to educational systems.

State and local regulations and procedures for special education should be centered on special *programs* and the people who conduct them, rather than on categories of children. School systems should be given special financial aids to open several alternative systems for the teaching of reading, for example, rather than for the identifying of learning disabled children. Leadership personnel in special education should center their efforts on improvement of programs, rather than on regulating the boundaries of the categories of children.

Special education should shift major attention to ways of inserting itself back into main-stream educational structures. The legislation, the "earmarks," and the special bureaucracies produced over the past decade have made their point in strong fashion. But, in the process, we have failed to win the leadership and concern of most progressive general leaders in education.

It is a distraction from the main issues, I believe, to argue about who is to be blamed for the difficult educational problems of some children. It is no more sensible to argue the extreme case of teacher accountability than the case that a child with problems is defective or inferior. It is analogous to the fruitless nature vs nurture debates. Neither does it say anything to say simply that both child and teachers, or school systems, are involved. What we must do is to understand the problems and to deal with them in terms of specific interactions of child, teacher, and task. Discussions that fall short of that level are mere rhetoric or emotion. The argument presented here involves focus on specific interactions and not on child or system failures.

Hopefully, the points of view espoused here, if implemented, could serve to take us in the direction of individualized early placement for pupils so that they need not experience long periods of failure before specialized resources are provided. Thus, perhaps, we can learn, gradually, ways for removing the degrading terminology now applied to children simply because their education is proceeding badly. They will have been placed in special programs not because they have

failed nor because they are impaired, but simply because that is the most promising educational situation for them.

The legislative structure that undergirds special education is drawn in language that stresses categories and mere surface variables. Perhaps that is inevitable and certainly not unique. In health, for example, much legislation is drawn in general terms such as heart, stroke, mental health, or cancer; but program development does not proceed in such simple categories. Similarly, in special education we may be able to live with social-action groups and legislation organized according to simple categorical language, but we should not let programs and children be confined by such language. The late Ray Graham used to advise special educators to drive ahead in program development and to let legislative changes come when necessary to validate new approaches. There is great need now for action in special education that stretches legislation and concepts of the past to include new meanings and more flexible programs.

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Special Pupils In Regular Classes: Problems Of Accommodation

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In discussions with regular teachers of the need for educational adaptations to increasing numbers of special pupils in their classes, one of the first issues usually raised is the classroom teacher's degree of freedom. Would the inclusion of atypical students mean changing things beyond the usual range of accommodation to individual differences? In some schools the limitations on the teachers are very rigid; in most, however, the teachers admit to ample degrees of freedom for change, especially after prodding by administrative statements that illustrate the wide latitude permitted for classroom practice. But just making teachers aware of their freedom is not sufficient. If care is not taken, awareness reinforces their feelings of inadequacy in meeting the range of children's needs. When we say, "You can do it now," we may motivate some teachers to try harder but we make many more feel resentful. They answer, "Do you want me to give up all the good things I am doing already? What more can I possibly do?"

The response arises out of the teachers' need for specific examples of how to individualize in their classrooms to provide for special pupils. While it can be demonstrated that many special students are already operating within the regular classroom range, so far we have had little to say about how other special students can be included. It is not enough to tell the teachers that the latter can be accommodated if expectations and curriculum are adjusted for them; that additional assistance for those who need it can be provided by adult or peer tutors and team teaching; or that pupils with low motivation and fear of failure may be encouraged by changes, sometimes drastic ones to be sure, in their experiences. Teachers need a blueprint for a more open design and they need authoritative sanctions: this is what can be done and this is why it is the useful thing to do.

Why is there so little movement toward a more individualized classroom design when so much lip service is paid to individual differences? Teachers note the lack of a broad encompassing model for a classroom with which they can feel comfortable. The radical literature does not appeal to many of them, although a new volume with another solution is published almost every week, because most of the techniques offered and the consultation given are devoted to making an impossible system possible at the sacrifice of regular and special pupils alike. Perhaps the single in-depth volume *Crisis in the Classroom* (Silberman, 1970) will start a more complete analysis of what is required. Individual differences in pupil-need for structure, self-moti-

vation, and skill development can lead to chaos if the radical, current humanistic model is adopted wholesale because the model leans so heavily on leader charisma. Teachers know the old model—a teacher-led "pupils all-in-unison-format"—and how it is supposed to operate even though they have a great deal of trouble making it work. When they seek a viable new model they are offered vague theoretical positions (except for the engineered and behavioristic classrooms, which turn out to be largely other-directed formats). The teachers agree that the new models should emphasize the individual pupil's commitment to relevant tasks, offer options of a wide range in size of working groups, reduce artificial time constraints, provide a more flexible curriculum, end primitive evaluative procedures, seek new uses of space, and offer various types of learning stations, and the like. None of these are really new. A teacher knows one must start wherever the children are at now and progress toward a more flexible classroom. The recognition indicates that what is needed is a process model and not a categorical, fixed entity that can be suddenly established on any Monday morning.

In short, if teachers are to make a place for more of our special pupils, their greatest need is a clear model for the new-style classroom. One of its primary constituents should be accommodation to broad variability. The best image available at the present time is that depicted by Carl Rogers in *Freedom to Learn* (1969). It is cast in terms of processes rather than of ultimates and, consequently, it reduces teachers' anxiety as it provides guidelines for a new education. A philosophical statement of what ought to be but without an operational design begets resentment; Rogers raises philosophical issues but they are clearly embedded in processes of action

A related problem is the matter of systems change. We have depended upon inducing change by authority and by adding knowledge components. Teachers should be trained to analyze their school as systems, that is, the interrelation of decision-making processes, power base, and espoused implicit and explicit values. Many of our most exciting and innovative teachers have lost their jobs because of inadequate training in analyzing how the establishment functions, which leads to their inability to understand how to work within it. As a result, they are excluded from the schools, even as are many special education pupils, because they do not fit into the system. All of the new administrative formats—team teaching, and so forth—must be studies from the viewpoint of the system. What is clearly evident in *Crisis in the Classroom* (Silberman, 1970) is the paucity of real innovation and the fact that any fundamental change must start way back with an explicit examination of goals. The concentration on the mechanics of change apart from the content of the change may result in individualization but of the same exhausted experience.

Back-up Support

Regardless of the perfection of a more viable model, the teacher alone cannot be expected to cope with all the variance that it is possible to find in a given classroom. The advice given by specialists may be correct and brilliant but it may not be feasible for individual teachers. The dilemma has led to the drawing of battle lines: On one side are the educational unions saying that the right to teach is the right to conduct a class of nice, clean, willing learners but not the unmotivated, retarded, disturbed, or disabled. The right to teach is, thus, the right to exclude. On the other side, there is the "zero-reject index" with which the public, courts, and parents move toward no exclusion. All children are seen as the teaching responsibility of the school.

The typical teacher does not start by rejecting pupils or by trying to get rid of any if there is a way of conducting a reasonable educational experience with the deviant child in the room. Teachers need a school system that assures them of two things: back-up in time of crises so that they do not have to cope alone; and on-the-job, problem-centered, in-service education. The variant needs of pupils can be met if a helping process is provided a youngster at those times when he cannot use the class setting and his teacher is given a new style of consultative support. Every specialist—the special class teacher, the resource teacher, and other experts—must be readily available to take the child at a crisis time and each must be trained in consultative teaching.

To the regular teacher, the enclave operation of the typical special class is of minimal help, especially since it never has enough places for all the hard-to-teach pupils. If more children are to stay in regular classes, the regular teachers need direct service in the form of an adjunct education experience for certain of their pupils. Usually classroom modifications in curriculum and/or handling will be necessary if the pupil's time out of the regular class is to be reduced. A special education teacher operating as a helping teacher provides peer-to-peer consultation as well as special techniques at the crisis time; the latter is inservice education as it gives direct assistance and training as well as advice. Regular teachers need the direct help of specialists but they also need to be taught how to work with various, specific special children who are less different from other pupils than their categories would suggest. Thus, perhaps half of every special teacher's job would be on-the-spot consultation as well as back-up support.

The whole procedure of peer consultation by permanent teachers who are residents of a school and part of the regular staff must be developed from scratch since the traditional consultation literature is not germane; this peer relationship is the most difficult function of helping, crisis, or resource teachers.

A school's capacity to include special pupils is also more than a

problem of an individual teacher's cooperation. The school system itself is involved in the way it listens to its clientele, the spirit of giving or denying that it portrays, and the many emotional components in its milieu. The key, nine times in ten, is the special education worker without portfolio we call the principal; more training must be concentrated in his direction. It is not only how he works to support his teachers that is important but how he serves as an over-group person with the children. His training should not center on the blind, the disturbed, or other categories, but on how to make a system flexible and supportive. The fall-out index of a school is a principal-capability criterion.

Training Teachers in Affective Education

Special pupils need help in the affective domain more often than others. They have problems in behavior control, moral development, values, self-esteem, and social attitudes—areas in which most teachers feel least adequate. Teachers who do not understand the processes of affective education are given to using inadequate techniques and, consequently, have low effectiveness in helping their pupils. It is no wonder that some teachers tend to reject special children who present so much of a challenge in an area where their competency is low.

What teachers need, again, is not more advice but more specific skill training. The implication of the self-fulfilling prophecy must be understood and appreciated by them. If teachers understand the tragic consequences of failure, they may be able to eliminate failure from the educational process. Many teachers cannot even sit down and talk effectively with youngsters; they must learn to do so. They need to know the course of moral development, the process of identification, the mode of value-discussion clarification, what classroom content stimulates growth in the affective area, and the impact of the existentialist pupil-teacher relationship that is replacing the role-authority model. Most teachers realize that the old authoritarian morality by dicta no longer works; it is our job to organize the material to teach them effective methods to replace it. Only a start has been made here. The materials range from Jones' *Fantasy and Feeling in Education* (1968) to the SRA booklets (Chesler & Fox, 1966; Fox, Luszki, & Schmuck, 1966; Schmuck, Chesler, & Lippitt, 1966) on classroom process analysis.

The Teacher as Interpreter to the Public

When teachers incorporate more than the usual variance in their classrooms, they need training in how to respond to the various publics they face. Regular pupils need help in accepting special children; some parents expect more than the school can possibly do for their children; and other parents fear their normal youngsters will suffer

from the effects of the "different" children. It is up to the teacher to develop understanding among the different publics, to explain the real or imagined problems, and to reduce anxieties.

A New Concept of Special Education

We all know that the terminology used to describe special pupils emphasizes categories and that the use of categories is misleading. Are we ready to provide a different and functional way of getting at the educational adaptability of the special child? We do not want to substitute educational categories for the medical ones; what we want to do is to find a new concept. Frank M. Hewett and his associates, among others, have begun work with multiple handicaps in the same remedial classroom from the focus of classroom-survival characteristics and they suggest the subgrouping of children on the basis of levels of their functions. Regardless of category a child must learn to attend class before he can be taught and the levels of classes progress to self-motivated activity. If we want to get special children in the mainstream of education then the mainstream-survival index is our key. Conceptually, the teacher sees her job not in terms of "curing" the special child but in terms of the specific help he needs to live and learn in the classroom setting, regardless of his category. So that the teacher will know how to go about teaching the pupil what is needed for his survival in a regular classroom, we must give the teacher the necessary specific training and tools for diagnosing the failure areas. Here is the first step in the rehabilitation of the special child: enabling him to function in the mainstream. There is, of course, the danger of conformity as the goal when the mainstream needs changing instead. By definition, special pupils are those for whom the regular expertise of a teacher fails to provide adequate understanding, which means that added knowledge is needed by teachers. Thus one of the most obvious changes needed to bring more special pupils back to the regular classroom is change in the use of the consultation process. Rather than depending upon consultants to do their own "thing," which is usually unrelated to regular classroom strategies, teachers must be trained to ask the right questions. After some sessions with teachers on this problem, it became quite clear to me that they could learn to get the help they really needed if they worked out the right procedures and asked the relevant questions. They were able then to take the lead in the problem-solving process for their own classroom situations.

Just as important as the revision of teacher use of consultants is the definition of "role dance" by the present specialists—whether school psychologists, guidance workers, behavior modifiers, social workers, or medical personnel. If they are to be helpful to teachers they must know about classroom constraints and group situations and, as well, the practical problems of the learning environments. To move

them toward more practical support, the point of view expressed in *The Protection and Promotion of Mental Health in Schools* (Lambert, 1965) is recommended; the issue becomes not how the child got this way but what can be brought into the classroom ecology to accommodate his needs. Most experts live in the world of theory and this publication demonstrates how one turns to the world of a thousand practical decisions in a day with concrete items.

Diminishing the Negative Approach

We are in the midst of a new wave of criticism of the schools and the teaching profession, which means criticisms of teachers and administrators. Special educators are becoming the most vocal of the critics, yet, at the same time, they are demanding change in the professional teachers and trying to persuade them to take on added responsibilities. It is not surprising, therefore, that teachers are moving to protect themselves through union contracts that specify exclusions of certain children from classrooms. A nationally prominent figure recently stated that if a teacher brings a problem to the attention of someone for help, it is the teacher who should be studied, not the problem child. This comment smacks of the old mental-health approach to teachers which admonished them to love their children and conduct themselves correctly and all problems would evaporate. In the environment of the school, the teacher becomes the focus and the culprit. If special educators persist in making scapegoats out of regular teachers, we will see them seeking vigorous protection from us; more importantly, we will grow fat on the youngsters they exclude from schools and we educate as a separate enterprise. In fact, one special educator advocated regular schools taking all the easy ones and leaving the others to us.

Thus, in our approach to seeking the placement of special education children in regular classrooms, we must include a diagnostic awareness of the pupil, the teacher, and the system. Heretofore, we have rotated scapegoats which called for a new program every time we changed focus. Now we must provide avenues or methods for appreciating the need for changes on *all* fronts at once: the individual pupil with his problems, leadership (teacher-administrator) personal skills, and the system as a whole with its tolerated gross imperfections. A symbiosis of regular and special education cannot be brought about by a dashing innovative program that is excellent for only a few youngsters. The symbiosis of regular and special education that we are seeking is a multifaceted, complex change that cannot come about far short of an educational revolution.

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Handicapped Children In Modal Programs

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My interest is in handicapped children. The specific focus of this paper, however, is the preparation of regular classroom teachers, supervisors, administrators, and other educational personnel to meet the needs of the handicapped in regular or modal programs. After three-quarters of a century represented by enormous difficulties and rather modest accomplishments, this may be an appropriate time to review alternatives to the so-called special education model developed in the United States to meet the educational and training needs of our handicapped children.

Beliefs and Assumptions

Beginning with Bennett's study in 1932, Pertsch's in 1936, this author's in 1956, and the many that followed and are being reported to this day, it has yet to be demonstrated that our existing special education models for trainable or educable children have demonstrated efficacy or special value. Further, the few studies that have been reported on the education of blind, deaf, orthopedically handicapped, disturbed, and learning-disabled children have not satisfactorily demonstrated the necessity of enrolling such youngsters in currently designed special education programs. Unfortunately, however, both data and experience indicate clearly those problems attendant to the placement of handicapped children in ordinary school programs. Therefore, when a profession such as ours finds itself in an unsupportable position if we turn to the right and an equally unsupportable position if we turn to the left, we had better find another direction to move in, for, it is equally clear, the truly unsupportable, mindless position is to remain exactly where we are. The time for experimentation is now and the special training of regular class personnel and regular supervisory staff are clearly the indicated areas that deserve our attention.

Special education has not proved its efficacy—neither have special methods nor special curricula—for exceptional or ordinary children or for students preparing to teach them. I have written a great deal on this interesting, albeit disheartening, phenomenon. Essentially I have concluded that, within broad limitations, one curriculum design is as good or as poor as another and, further, I include teacher-preparation curricula within this conclusion. To state this conclusion another way, whatever the teacher-preparation design may be, there is no guarantee of its being either proper or improper, good or bad. To state it yet a third way, we will not learn from the words used or the curricula

designed whether a particular program will train regular classroom teachers and supervisors to deal more effectively and sensitively with handicapped children and their families. I would be in a position to estimate better the chances for such a program to succeed if I were given some evidence of the thoughtfulness that was invested in preparing the program plan, and the degree to which the program was inductive in nature, open, and interesting to the students, and required each participant—student or faculty member—to struggle toward understanding himself as a learner or a person capable of changing.

The responsibility for preparing teachers and allied professional personnel does not reside exclusively in the college or department of education. The entire university or college, not only its specialized schools and departments, must be involved and concerned with the preparation of teachers. Further, teachers and other educational personnel do not receive all of their professional preparation during either the four-year undergraduate or the graduate preparation. Teaching, as all professions, requires continuous self-appraisal, retraining, and inservice opportunities for personal and professional growth.

A broad liberal education is crucial to adequate teacher preparation—be they teachers of ordinary children or of the handicapped. Insofar as I am concerned, there are two dominant characteristics that all teachers should possess: an interest in people and an interest in learning for the sake of learning. Especially insofar as teachers of the handicapped are concerned—teachers of children who have difficulty in school and who may be "reluctant" learners—it is important that they themselves struggle with and master challenging, intellectual tasks and, consequently, learn that learning can be its own reward—that it is a most vital and public activity. Without such experiences, it is difficult for me to believe that teachers of the trainable, for example, will have much of a chance convincing their pupils that learning may provide both personal as well as material benefits. For this reason, I believe that the teacher of the trainable and the teacher of the multiple handicapped require, at least, an education as rigorous, broad, and liberal as anyone in either fields of education or other professions.

The clinical orientation is an indispensable part of professional training. Preparing the teacher as an applier of psychological principles rather than as a technician or imparter of knowledge is not likely to take place in any marked kind of way by merely increasing the amount and variety of information (i.e., liberal arts, child psychology, science) that teachers should have (Blatt, 1967; Sarason, Davidson, & Blatt, 1962). We must not confuse what a teacher knows with how she applies such knowledge. To state the idea another way, in agreeing with the general desire that the preparation of all teachers be more concerned with the breadth and depth of liberal arts and science as a background, it would be unfortunate for us to assume that by rectifying

any deficiencies in these areas the effectiveness of teaching has been eliminated thereby as a problem. As a strong liberal arts preparation forms the foundation for the theoretical study of education, the clinical experience—ranging in character from observation and student teaching to long-term clinical internships—provides the environment for dynamic learning by bringing theory to life. Crucial to the preparation of teachers is the maximization of the possibility that a teacher's practice harmonize with principles of learning and development.

There is a basic core of professional knowledge and activities common to all teachers, regardless of specific specialization. This core should include proper attention to the study of educational philosophy, proper attention to the study of the behavioral sciences, proper attention to the study of the role of teachers and schools in a democracy, and a sensitivity to the philosophies and structures of the sciences and arts.

Specialized professional skills, techniques, and content are more in need of review and ongoing re-evaluation and refinement than any other aspect of the teacher-education curriculum.

Probably, attracting intelligent, interesting, and humanistic kinds of people to work with handicapped children has much more to do with the development of effective teachers of the handicapped than however the training program happens to evolve. That is, the kinds of people that are recruited for EPDA* programs may well determine how successful these programs are and how well they fulfill their missions.

We should not be misled to overestimate the numbers of specialized personnel needed to deal with handicapped children in the regular grades. For example, the usual textbook on exceptional children estimates incidences in the various categories of exceptionality that are both erroneous and misleading. Mental retardation commonly is estimated to include anywhere from 3 to 16 percent of the school population. My recent demographic studies (Blatt, 1970) lead me to conclude that, insofar as mental retardation is concerned, the aforementioned estimates are based purely on presumed psychometric retardation. Mental retardation—where a child is identified and placed (or denied placement) in a special program or treatment—occurs in not more than one percent of the total population and in not more than 1.5 to 2 percent of the school-aged population. Similarly, estimates of the incidence of learning disabilities, emotional disturbance, and other handicaps are probably inflated.

The recent annual report of the National Advisory Council on Education Professions Development to the President and the Con-

*Education Professions Development Act.

gress of the United States (1969) and more recent executive and legislative behavior, indicate that the coming years may not be without great hardships and, possibly, little or no progress toward programs and activities on behalf of the handicapped and their families.

Objectives

1. The dominant objective in preparing regular classroom teachers and other educational personnel for work with the handicapped should be the development and reinforcement of their humanistic concerns. Because handicapped children are most prone to discriminatory practices, thoughtless and insensitive plans, and public policies that are designed to isolate and segregate them, teachers and administrators in EPDA programs are especially in need of workshops and experiences that emphasize sensitivity to these matters and ways to guarantee better that the rights of these children—the rights of all children—will not be observed in the breach. All teachers must be, first, humanists. Their central concerns must be with people. The strong humanist convictions that most teachers have when they enter training programs must be preserved and enhanced.

2. The process of teaching requires a kind of pedagogical artistry that may be stifled by the drudgery of too many thoughtless courses, activities, and boring experiences. Teachers must be given opportunities to explore and evaluate the basic pedagogical premises, theories, methodologies, and techniques that the literature and demonstrations make available. However, the same concern must be given to the need creative people have for self-expression, for the development of one's original style. Teachers in training must be given sufficient opportunities to struggle to understand themselves as learners. They must be given encouragment to develop their own—not imitative —styles of teaching and interacting. There must be sufficient breadth and flexibility in the EPDA curriculum to permit each trainee as much freedom as possible to discover himself as a teacher and a learner and to evolve his own unique style and philosophy.

3. Basic to her preparation as a regular teacher with newly developing skills and sensitivity for working with handicapped children, is the teacher's development as an observer and interpreter of human behavior. Rather than a continuation of lifeless lecture courses or trivial and unrelated discussion groups, a significant portion of the EPDA trainees' program should involve the teacher in a psychoeducational experience of the kind we, and a great many others, have written about in recent years. Teachers must be trained to observe, to discover that what they see and what they infer must be held separate, or an already complex task becomes unmanageable. The processes of observation and inference are strongly affected by the prejudices a teacher brings to the observational task. The goal of

preparing the regular teacher for work with the handicapped—culmination in the clinical experience—should be concerned with helping the teacher understand her prejudices so she may deal with them more effectively. Further, the process of clinical training may aid in remedying the kind of "slot machine" education—normative teaching—that practically all children are continually exposed to and practically all teachers universally support.

Strategy and Tactics for Implementation

This paper has presented certain beliefs and assumptions, positions that become critical to the design of a strategy for implementing a program to train regular educators for work with the handicapped. As mentioned previously in this paper, I believe one strategy for implementing a program is more or less as good as another. The important element here is that each college or university that accepts EPDA responsibilities be permitted the freedom to develop its program and pursue its mission in its unique fashion. In preceding sections, my biases were made plain. However, my overriding bias is for groups to be selected for these kinds of responsibilities on the basis of their thoughtful presentations, logic, and past histories. Especially at this time in our development, we should not expect, nor should we even encourage, programmatic similarity from college to college. Although it is appealing, this reliance on tradition or the weight of authority has little place or value in a field that has all too painfully demonstrated its relative incompetence to deal with the problems entrusted to it.

Insofar as tactics are concerned—that is, who is selected for programs, who teaches, course sequences, course credits, field experiences, other clinical experiences, length of program, depth of program, cognate areas, etc.,—these matters must be left to the wisdom of those to whom we entrust such programs. During the next several years, the wisest decision of the Bureau of Educational Personnel Development might make is to deliberately provide the means and encouragement to maximize the varieties of programs designed to prepare regular personnel for work with the handicapped.

Conclusion

Segregated, four-walled experiences for handicapped children—what is referred to as special education—has not proven its superiority to modal or regular school programs. Today, after 25 years of enormous post-World War II program development and interest, the time may be appropriate for intensified efforts to develop and evaluate alternatives to either special education programming or the placement of handicapped children in ordinary programs without special regard for the unique needs these children have. As we stated approximately

10 years ago, the preparation of teachers is, essentially, an unstudied problem (Sarason et al., 1962). Today, it continues to remain unstudied—but greatly maligned. It appears to me that the essential responsibility of the Bureau is to develop the means to generate and support new and innovative teacher-preparation models as, hopefully, others among us are promoting the development of comparable models in our preschool, elementary, and secondary schools. The one thing that must not happen is for this new program to evolve into either a carbon copy of what is now called "bona fide teacher preparation" in special education or a distorted view of what some modern-day alchemists are prescribing for all children and for any child.

I don't believe handicapped children will get along well in a modal or ordinary school program. There are many ordinary children who do poorly in such programs. What I have tried to communicate is that, in the best of all possible worlds, every classroom should be a special classroom, teaching should be more inductive and diagnostic, and teachers should be most concerned with human beings, the qualities they have, and the skills they need.

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Special Education for Exceptional Children Through Regular School Personnel and Programs

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Special education is usually defined as the term would suggest: education different from the usual. Exceptional children are not all alike and neither are their special education needs all alike. Some need different education all day, every day, all their school lives while, at the other extreme, some exceptional children need only relatively modest educational adaptations to be assured of high quality schooling.

There is and there will probably continue to be a substantial need for many exceptional children to spend most of their school days with teachers specifically prepared to apply special education approaches. But there are other exceptional children for whom the regular school personnel programs can be used with fully satisfactory results. We do not yet know all we need to know about how to serve the latter in regular schools. It is time, however, that we sought the help of all who might contribute to that additional knowledge.

Certainly one major contributory group includes the colleagues of special educators who now teach the great majority of the nation's children so well. While they might immediately assert that they are not experts in special education, that very assertion would make clear one of their strengths: They are not bound by the caveats and traditions of special education. Their involvement in planning education for exceptional children could well cause special educators to increase their own healthy skepticism about some accepted special education practices. And, no doubt, such a professional planning partnership would bring other strengths to focus upon the individualizing of education for exceptional children.

A chief theme in training programs for all members of the education professions should be that the education of exceptional children is an integral part of the education of all children. That theme should be sounded in a variety of ways. It should be made evident in what is done about educating the exceptional in exemplary school districts, urban and rural.

The recent rebirth of a broad commitment of the individualization of instruction for all children took place in classrooms for typical children (i.e., Individually Prescribed Instruction; Program for Learning in Accordance with Needs; Individually Guided Education).

Perhaps such designs for education can include many exceptional children.

The slogans that call for the life experiences of exceptional children to be "a part of" rather than "apart from" those of typical children must be made operational in the preparation of all teachers for their professional work. This principle of inclusion applies to the attitudes and abilities instilled through training programs for chemistry teachers, school librarians, primary-reading team leaders, physical-education teachers, and all other teachers and associated members of the education professions. (It should be a chief theme, too, in the education of all teachers of the exceptional—all of whom should be able to teach the typical child with real competence; but that is not the main point of this paper.) The training programs of all members of the education professions should give them knowledge and experiences that will result in their having confident and willing personal approaches to the instruction of any exceptional child.

At the present time, many, if not most, teachers are resistive to, frightened of, or at least very unsure of themselves in the teaching of exceptional children unless they have had specific preparation. These attitudes have been fostered for a number of reasons. While it is unlikely that such feelings are deliberately implanted, it is nevertheless true that they exist and that they are strongly entrenched. To change them (and they should be changed) is no small undertaking. If it is to be accomplished, it will require concerted attacks on several fronts at the same time. It will call for joint operations by groups that are not noted for their willingness or ability to work cooperatively; and it will call for giving up some of the "advantages" that are presumed to be connected with special education's hard-won, high-level visibility, now based largely on separation from the mainstream of education.

Approaches to the Problem

The already crowded training program for educators need not be substantially extended. To include the teaching that is necessary to prepare all members of the education professions to be more effective with exceptional children, it is not necessary to add a multitude of new courses. Instead, the material now taught needs to be brought into a new focus, which can probably best be accomplished by agreeing upon a number of principles, each to be presented as part of the prospective educator's already existing professional curriculum. Those principles may best be presented under the following seven topic headings:

1. Curriculum
2. Methods of Teaching
3. Instructional Materials
4. Organization for Instruction
5. School Physical Plant
6. Auxiliary Services
7. Community Relations

Curriculum

The term as used here includes only what is taught under school supervision and our concern is with the subject matter of special education—cognitive, affective, and motor education. How what is taught to exceptional children differs from the typical school curriculum needs to be presented clearly and succinctly. It is proposed, therefore, that the following points be made in the preparation of all teachers and other professionals in education:

1. There is no curriculum in special education that differs completely from the typical. For the most part, the differences are in emphasis. A few curricular elements need so much stronger emphasis that they may seem unique and they do require particular skills on the part of the teacher, but only a few.

2. The conventional groupings of exceptional children require mainly the following special emphases in curriculum:

(a) Physically handicapped: adapted physical education and mobility skills.

(b) Hearing handicapped: adapted language arts and music.

(c) Visually handicapped: adapted reading, writing, mobility skills, and art.

(d) Mentally gifted: curricular enrichment and acceleration.

(e) Mentally retarded: curricular deceleration and vocational training.

(f) Emotionally disturbed: no major curricular emphases.

(g) Speech handicapped: no major curricular emphases.

(h) Neurologically handicapped; learning disabilities: no major curricular emphases.

Differences in viewpoint on the curricular needs of exceptional children probably hinge mostly on the definition of the term "curriculum" rather than on anything else. In any event, it should be possible to obtain a concensus on the details.

Methods of Teaching

Contemporary applications of social-science research to instruction are clarifying the fact that all teaching methods seem to be variations on a few common themes. Important overt differences are seen between what has been called, for example, the "project method" and what has been called "behavior shaping." Underlying each structure, however, are a limited number of common components. If the foregoing is true and if teachers understand it, a readily usable bridge spans special and regular education methods.

Surely a great deal must be learned if any teaching method is to be used skillfully. But a particular teaching method need not be the property only of the teacher who has learned it under formal instruction during professional preparation. If teachers understand the basic

principles of all methods, they should be able to acquire many specific methods through self-instruction or in short workshops aimed specifically at assuring competence in particular methods.

Instructional Materials

More than in curricula or in teaching methods, a "special" quality of special education appears in unique or adapted instructional materials. Here are such examples as readers designed for the mentally retarded, books of projects for the gifted, large type or braille and other tangible materials for the visually handicapped, page turners and adapted typewriters for the physically handicapped, and many others.

Perhaps, along with physical-plant considerations, the instructional-materials situation presents the most serious roadblock to furnishing optimum instruction for exceptional children in regular classrooms. Such materials are often expensive and awkward to move, and they require large amounts of storage space. The tendency to put them together and to bring teachers and pupils to them is understandable. In fact, the spatial concept of instructional-materials management characterized the first moves in the recent excellent growth of interest in instructional materials. Instructional-materials *centers* were established rather than instructional-materials *programs*. The second, fortunately, is now emerging as the principle of management to be applied.

Much of what is considered special educational-instructional materials could, however, be incorporated into a broader program of instructional-materials development and use for all children. Certainly it is true for the special education adaptation of standard materials and, with improved technology, what is now expensive and difficult to handle will become more convenient and less expensive to move, use, and store.

Organization for Instruction

Under this heading we are concerned with how a teacher or a group of teachers program their instructional activities. It encompasses decision-making about what (i.e., spelling, arithmetic, history) shall be taught first or second in the daily schedule, how frequently in the day, week, or year it will be taught, and when and how achievement will be tested. Organization for instruction covers the arranging for team teaching, use of paraprofessionals and aides, and seeing that the right instructional materials are with the right pupils and the right teachers at the right times and under the right conditions. In short, organization for instruction is the generalship and logistics behind the instructional act. Plainly, the more different people, places, and things that are involved the more complicated and difficult be-

comes the task of organization for instruction. It accounts for much of the appeal of the old paradigm of a pupil on one end of a log and a teacher on the other.

Moving special education toward real operational relations with the school system in general obviously can increase the problems of organization for instruction. Such problems, regardless of where they originate, usually end up in the office of the principal unless they are suitably resolved or eliminated. To the pupil's detriment, an easy way to bury such problems is to avoid the designing of teaching arrangements that call for cooperation among teachers. The alternative, of course, is to make very high-quality organization for instruction so rewarding to all professional persons involved that it is achieved despite personal inconvenience.

School Physical Plant

By now, hopefully, the means of avoiding or eliminating architectural barriers in schools are well established. Not all separate special education buildings have avoided such obstacles, however, much less ordinary school buildings now standing or under construction. Many children who might otherwise be aided materially by instruction in regular schools are effectively barred from participation by the physical properties of school buildings. Correction of this condition is needed.

But the removal of architectural barriers to the general use of a building must be recognized as only an initial step. The larger problem remains that of supplying optimum interaction between instructional requirements and space design and organization. A gross evidence of the issue is found in the present knowledge that, on the average, an exceptional child requires twice the square footage of instructional space as other children. Averages do not tell the story well at all, and even measures of variance do not add much; but they serve, as in this brief statement, to highlight the architectural needs that must be considered if any substantial number of exceptional children are to be merged into typical schools.

Auxiliary Services

Transportation, food services, safety, and general health care are examples of items considered to be auxiliary services. Each raises particular problems in relation to the bringing of exceptional children into the classrooms of their typical brothers and sisters.

None of the problems is insurmountable. What has to be considered, however, is the cost/quality interaction. It might be more economical to pay a relatively high price for a few expensive years of specialized education at the elementary-school level if they are followed by effective integration of the pupils into the mainstream of

education in their junior- and senior-high-school years. Part of that early expense might be to make all buses, cafeterias, and other similar services capable of meeting the needs of exceptional children in all schools. Such an approach might not accommodate all exceptional children, to be sure, but it has never really been tested to determine how effective it could be.

Community Relations

Many adults and children respond with prejudice and rejection to some exceptional children, even to such disparate groups as the retarded and the gifted, as well as to those whose exceptionalities are more immediately evident. If exceptional children and youth attend regular classes, they become more visible than if they are in special classes in the same schools and much more visible than if they attend special schools.

Today's society is probably better prepared to assimilate exceptional children and adults than the society of several generations ago. But it is by no means a problem that has been laid to rest. Therefore the planning for integration in this sense needs to include readiness on the part of the entire community. The volunteer parent groups that have grown up during the last two decades probably offer the best means of fostering the required community relations. While not the only force that could be brought to bear, exceptionality-oriented groups, such as the parents and friends of the gifted, the cerebral palsied, and the retarded—who are not necessarily mutually exclusive—could be of real influence if mobilized for the purpose. Perhaps the hardest part of the mobilization effort, though, would be to convince the groups of parents and friends that blending the education of the exceptional with that of others is sometimes desirable. Many adults still remember the struggles to rescue exceptional youngsters from the non-attention of the regular schools.

The Organization of the School System

More and more teachers' views are being heard in the determination of how school systems are organized. Through unions, professional organizations, and the impact of individual leadership, teachers are contributing guidance to everything that bears upon their activities as they plan, conduct, and evaluate the instruction of pupils. At the same time, the delivery of educational services is being called upon to adapt more to the requirements of the consumer, which means, sometimes, that education is arranged less for the convenience of the professional educator. The consumer, of course, is primarily the child but, in a broader sense, it is also the child's parents and family.

By way of illustration, it should be borne in mind that while the

child may not mind a half-hour bus ride daily to and from school, his parents may. And they may well point out that dividing their family by sending one child by bus for special education and another child to the neighborhood school puts the entire family to an unnecessary disadvantage or inconvenience. Moreover, the exceptional child may be less well served educationally in some ways, such as having less library or study opportunity on account of his time-consuming journey. Here is only one illustration of what could form the basis for an educationally legitimate complaint.

Comprehensive educational planning for exceptional children certainly needs to include possible uses to be made of all school facilities and programs. Planning can be carried on best between teachers and parents with administrators and pupils as interested and helpful parties to the decision-making. Perhaps much more is possible in that direction than a deliberately separatist point of view, characteristic of many special educators, would ever admit.

How to Accomplish the Objective

There is much to be said about how to move toward the objective of full involvement of special educators and their colleagues who now serve children not in need of special education. All of the principles cannot be spelled out here but some seem clearly worthy of immediate note.

1. Work must be shared in any partnership. To what extent are special-education teachers willing and able to participate in teaching children from regular grades?

2. Professional persons should accept only duties for which they feel prepared. What specific special education competencies should be built into preservice or inservice preparation for all teachers?

3. Fiscal policies are powerful influences on professional practices. For one example, how ready are state education agencies to reimburse special education on a basis flexible enough to encourage a move in a new direction, such as that contemplated here?

4. The federal, state, and professional special education establishments work hard to maintain a separatist public image for the education of exceptional children. How can the evident strengths of such a posture be maintained if exceptional children in any significant proportions are deliberately led into education's mainstream?

Other principles or illustrations of craggy questions probably could be added to these four, though I believe they are the main ones. What is needed, it appear , are some pilot activities to work out operating solutions and alternative approaches. Once piloted, the operating solutions could be made palatable by making them financially advantageous at the same time that they are shown to be educationally and socially at least equivalent to present special education practices.

Handicapped Children in Regular School Settings: Four Suggested Models Using BEPD* Funding

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The feeling is growing among school personnel in the United States today that general education must pay more attention in regular classrooms to the special needs of children with relatively minor physical and mental disabilities. At the same time, an equally strong feeling in special education circles advocates the movement of special education toward the realm of general education and the de-emphasis of its "specialness" or isolationism.

The following specific circumstances or situations also force us to reassess our educational practices:

1. Real or imagined lack of adequate fiscal resources for general and special education programs at the local, state, and federal levels.
2. Increasing negative criticism by consumers of the effectiveness of general and special education. Considerable doubt is also expressed by parents of handicapped children and youth about the tendency in special education to resolve handicapped children's problems by isolating them from the general school population.
3. Greater use of paraprofessionals and volunteers in the school setting.
4. Marked interest in the change in the style of college training programs and the subsequent certification of school personnel by state agencies.
5. Increased interest in professional and lay communities in the early identification of the multifaceted needs of children with "soft-sign" disabilities.

There follow four rough, schematic models that might be used by BEPD and related personnel to meet the needs of pupils with "soft-sign" disabilities in regular school settings. The models need a great deal of design refinement but they might serve as departure points from the rigid special education pattern of self-contained classrooms.

*Bureau of Educational Personnel Development.

Model 1

Two or three moderately emotionally disturbed children in regular classrooms

This model would produce a hybrid special-regular class that would be presided over by a dually-trained teacher who could "absorb" disturbed children in a regular classroom of reduced size. The teacher would be and would feel competent to serve the 16 to 18 normal pupils while giving special attention to the two or three disturbed youngsters in her class. State financial aids would be used to offset the high cost of the reduced class size.

EPDA[1]*-type person serving group*: Reinforced regular classroom teacher.

Purpose: To include emotionally disturbed children in the regular program rather than in a self-contained special education classroom.

Proposed teacher training: One year plus summer session; intensive college program with heavy practicum emphasis for baccalaureate or higher-level regular teachers in a university department of special education, emotionally disturbed section.

Related administrative adaptations: State aid for the handicapped prorated; use of aide in classroom if need is indicated.

Model 2

Hard-of-hearing pupils in regular classrooms

The emphasis in this model is on the use of teacher aides. They would be intensively trained, not just casually exposed to professional information. The training would include in-depth practicum experiences in regular and hearing-impaired special classrooms. The aide would be tied tc both the regular teacher of the classroom in which the hard-of-hearing student is enrolled and the hearing specialist, who would provide empiric data and service to the child and would supervise the aide's work in hearing therapeutics. The aide would serve five to seven hard-of-hearing children in regular classrooms, preferably in one large elementary school.

EPDA-type person serving group: Speech and hearing aide working under prescription and guidance of a speech therapist.

Purpose: To increase the service to hard-of-hearing or speech therapists.

Proposed training: Junior-college graduates in licensed practical nursing, house parents, and so forth, would be given 12 to 18 weeks of intensive training in a speech therapy program at a college or university. The emphasis would be in practicum at regular and special

[1] Education Professions Development Act.

class levels, and the need for adherence to written prescriptions would be stressed.

Related administrative adaptations: The aides would be used in the regular classrooms to coach, tutor, or otherwise assist hard-of-hearing pupils in their studies and related activities. Special state aid would be paid for the aides as special education personnel.

Model 3

Two or three physically or mentally handicapped pupils in regular classrooms

This model is designed to give special attention to the disabled child without removing him from the regular classroom. Although it ties special and general education to the same classroom unit, it recognizes the fact that regular teachers have the classroom responsibility. The clinical staff in special education would thus be able to establish a place for the handicapped child in the regular setting without overwhelming the regular classroom teacher.

EPDA-type person serving group: Special education aide in regular classroom.

Purpose: To provide handicapped children with extra time and services and to make it possible for them to be included in regular classrooms.

Proposed training: Junior-college graduates or the equivalent would receive 12 to 18 weeks of intensive training in regular education techniques and goals as well as course work in special education, psychology, and so forth. Practicum in both regular and special education settings would be required.

Related administrative adaptations: The regular class special aide would work immediately under the supervision of the regular grade teacher but would receive heavy professional support from the special resource room, clinical teachers, or the special education supervision group. Special financial aids from the state would be made on the basis of the eligibility of the handicapped children served.

Model 4

All handicapped children: Improvement of relationships with auxiliary school personnel

Many handicapped children are misunderstood or poorly treated by bus drivers, maintenance men, and so forth. In order to improve the atmosphere for handicapped children outside the classroom but during the school day, a new attitude must be developed in auxiliary school personnel. If these workers can be shown better practices and encouraged to understand the handicapped children, both the workers and the children will be happier and more productive.

EPDA-type persons serving group: Auxiliary school personnel such

as bus drivers, lunchroom workers, janitors, clerks, crossing guards, etc.

Purpose: To provide such auxiliary school personnel with new information on and to develop positive attitudes toward handicapped children in the school population. The primary purpose would be to help these nonprofessionals accept and aid handicapped children.

Proposed training: The program would include four to eight weeks of training during the summer and in-year follow-up on four to eight Saturday mornings. The course work and practicums would be organized and taught by a combination of college people, special education staff members from school systems, central special education staff, and classroom teachers. The use of parents, psychologists, and related workers in the program might also be explored.

Related administrative adaptations: School districts would select staff members who have a high exposure to handicapped children to take the course work. The districts would follow up the intensive training with refresher courses and evaluation of the training effects.

Summary

The desirability of including children with emotional disturbances or mental or physical handicaps in the regular classroom is unquestionable. To establish such programs, however, special assistance must be provided regular school personnel through training courses and/or specially trained aides who can work under the direction of special education supervisors. The four models presented here indicate how BEPD funding could be used most advantageously to combine special and regular education in the same classroom without diminishing the educational opportunities for any child.

Action for Handicapped Children

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Educational programs for handicapped children are in a growing but still spotty development throughout the United States. A national view of school districts must reveal the full continuum of services ranging from none at all to fairly well-developed complexes. The range suggests that we are still in the beginning stages. Few districts, even among the best, provide what is needed for handicapped children. The situation suggests that many people, including some in the education profession, are still unaware of the existence, much less of the needs, of many handicapped children. So where can we go from here?

Handicapped Children in Public Schools

Aside from the relatively small percentage of handicapped children and youth in institutions, most of the children are in homes, community agencies, and schools. During the last decade we have seen a great increase in the percentage of the handicapped population being served by public schools. Then, too, in the public schools we have developed a better and more adequate knowledge of the handicapped child. Now we feel that quite likely one out of every five children attending school is handicapped in ways detrimental to his learning. Further, during the last two decades especially, school personnel have become aware of greater numbers and additional groups of handicapped children through the sensitivity that has been brought to the scene by various specialists. In other words, the more we have worked with children in general the more we have discovered relatively subtle but handicapping conditions.

In public school districts, combinations of three modes of organization have appeared. First was the feeling that handicapped children needed a sort of protective isolation, which gave birth to special facilities apart from the regular ones. Then, just a little later, some school districts decided that special facilities could be included under the same roof with regular facilities and that more program options for the handicapped child would result. Now we are giving more attention to the many possibilities for some handicapped children to be served very adequately in regular classrooms. It is predicted that the organization move will continue to be away from special facilities and toward a combination of the integrated-facility approach and the approach that depends on regular classroom teachers to serve the handicapped child. It does seem that special facilities under the same roof with regular facilities will continue to be a need.

It would seem desirable for a national impetus to be given to developing integrated facilities, that is, to special and regular facilities and programs, under the same roof—the same elementary school, the same junior high school and the same senior high school. In this way, one rather short-range objective is reached and a long-range objective might be achieved. The short-range objective is to maximize the options of the handicapped child in an educational setting. There is no either/or of placement in the sense that *either* he goes to this school *or* he goes to that school across town. The child is in a setting that has many different programs at work and many different facilities; therefore progressive inclusion can be accomplished. Progressive inclusion occurs when a child can be programmed anywhere along the time continuum, from five minutes, to a half day, to a full day, in any one of the programs offered by the school. He is programmed according to need, according to what is best for him.

The long-range objective that may be served by emphasizing and producing integrated facilities—the special and the regular together —is that ultimately this comprehensive provision of facilities, staff, and program will be seen as regular. Ultimately, our concept of what public education is will change and will include a comprehensive view of both children and program.

Educating Regular Teachers to Educate the Handicapped

Where now to go for handicapped children? The problems are huge and extremely varied, and it is hard to find the handle. Perhaps there is no one handle; perhaps there are many handles. Perhaps a singular approach will fail and a multiple approach has a chance of succeeding. What may be needed is a program of multiple approaches that would operate in the three areas of preservice education, inservice education, and program demonstration. If someone would add the necessity for research, it could become a part of the program but without taking top priority. The task is more one of implementing what is known than one of generating new knowledge. In no way should this view be taken as a denial of support for evaluative research, that is, research in the effectiveness of various approaches; we need such research a great deal but, above all, we need to act on what we already know.

A national push, state by state and institution by institution, needs to be made in teacher education so that the exceptional child is included in the training of all children. Somehow this reminds one of some of the curriculum imperatives for the black man in our culture. We do not need one course on the black man; we need to see the black man in all our courses. Similarly, we need to see the handicapped child in all of teacher education, not just in a unit or course on the handicapped child. The handicapped child must take his

place along with all of the other children when the teacher is in preservice education, in the content and process of all of the courses that are taught. The experience should happen by exposure, if nothing else, to handicapped children through laboratory experience, for all those who seek to teach. Teams should work together in preservice education; the team that is going to work together in the field should be trained together at the university. The teacher should be aware of the psychologist, the social worker, the nurse, the speech therapist the counselor, and many others, before she reaches the field. This type of program would result in a different mind-set or expectation than many teachers now have when they reach the field. It might result in a willingness, eagerness, and intent to work with handicapped children along with other children in general classroom activity, and it might result in a willingness to participate with all other staff in helping handicapped children.

Many needs are found in the inservice realm. Even in districts that have developed extensive programs for handicapped children, there are very visible needs. First of all, there is an awareness need, a need for all staff members to become aware of what the program is and what the program is trying to do. Then there is the need for a sort of process awareness. We may know that we have certain programs but how does the child get into the program, how does the third-grade teacher relate to it and how does the process of progressive inclusion work? What about double membership whereby a handicapped child is in a resource room but also in the third-grade class? How does that program work? Through process awareness.

We have tremendous needs in the teaming areas. How can teachers team up to work together? How can the diagnostic team get together with teachers so that a better plan for a given child can be worked out? Teaming is the word for the future; it will replace isolation for any child or staff member.

A fourth area of need is additional help for staff members to develop programs for handicapped children. Staff members themselves must be helped to do the job for they will be in control of much of program development in the future. This control will come through negotiations and through increasing teacher and staff power. They need help—we all need help in the public schools so that staff members can participate in the development of programs for handicapped children.

Some negative phenomena are at work in some of our school districts. Where there is an unawareness of program specifics for handicapped children, suspicion often develops, and then hostility. When hostility exists, often there develops the breakdown of program, of process, and even of individuals. This situation is extremely

destructive and wasteful and seems to tell us where one of the emphases should be in inservice work.

School districts and universities must have more realistic possibilities for demonstrating new and innovative approaches. The program demonstrations should have the advantage of a fairly long term rather than be the too frequent one-year shot, and they should have the advantage of well-developed evaluation and dissemination components. The current stress on the individualization of instruction, multiple materials, media, computer-assisted instruction, and all of the other hardware promises should be harnessed and scrutinized for the handicapped child as well as for other children. But demonstration will not serve well if it exists alone or in isolation. Demonstration programs and projects should operate in concert with newer preservice and inservice efforts, such as those described earlier. Research is in this necessary but not sufficient category. Neither demonstration nor research can stand alone and yet we have some people, even on the national scene, who suggest that what is needed is research or demonstration. True, we need research and demonstration but not as singular efforts that presume to solve the problem. These efforts will not solve the problem except in concert with both preservice and inservice approaches.

Summary

In summary, the point of view presented here supports a three-layered approach made up of preservice teacher education, inservice education, and demonstration projects of various kinds. For the long run, teacher education may offer the most hope if it will include the handicapped child, not as an extra but as an intrinsic element of human variability. However well teacher education does in the future the problems will not be solved if the new teacher walks into an unaware or even hostile school. Hence, the concurrent stress on inservice education that really should start at a fairly unsophisticated level, that of developing awareness of the problem, the program, and the process. In this regard, administrators must have greater opportunity than they now have to get together and talk about the handicapped child. Teachers too must have these inservice opportunities to talk about the handicapped. In school districts as they operate today, these opportunities do not exist in abundance, to put it mildly. The effective teacher becomes very involved with her children and runs out of both time and energy for additional concerns. She needs released time to develop her awareness of the handicapped child and to develop her skills in helping him. What is needed is a massive program of special time for all staff members, teachers, other specialists, and administrators to develop greater awareness of the handicapped child and greater adeptness in working with him.

Formula for Change

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Twenty-four centuries ago, the Greek philosopher Diogenes observed that the foundation of any state lay in the education of her children. Credence is given to that philosophy today, but we are still desperately struggling to find appropriate ways to accomplish the task effectively. The philosophy, organization, objectives, curricula, and strategies for educating children are coming under a generalized societal assault that is characterized by disenchantment and suspicion. It has even been suggested that the educational structure in America has remained so archaic that it should be discarded completely. At a time when technology and creativity should have produced the most advanced learning environments in the world, public schools are being criticized for offering little evidence of preparing youth to cope with society's problems, such as, poverty, unemployment, racial inequities, urban blight, violence, and so forth. While there is some scattered admission that positive educational changes have taken place since Sputnik in 1957, these changes seem insufficient both in nature and degree.

Deliberate Programs Needed to Effect Change

"American education is in urgent need of reform" were the opening words of President Nixon's 1970 message on education. Reform, which requires education to be accountable for its efforts, is an essential priority of the times and not merely a whimsical desire for change for change's sake. What is being called for is a comprehensive change in the content and organization of education to demonstrate conclusively that the educational experience has a positive influence on the total life and environment of the individual student.

The educational scene will not obligingly change for the better merely because we want it to change. Actually, large and established institutions resist change tenaciously because change is usually seen as a severe threat to the existence of the institution itself. However, change can and must occur, as Gardner (1964) pointed out, in order for society to renew itself and, thus, to survive. The bold fact facing the institution of American education today is that change must occur during this era of accountability. In a note of cautious optimism, Dr. Terrel H. Bell, Acting U.S. Commissioner of Education (1970), stated that "despite obvious complexities and difficulties, it nevertheless

seems to me that the times are more propitious today than ever before for actually achieving the reform of our educational system."

Special education provides a microcosmic picture of education's failure to incorporate those aspects of change that would enable it to keep pace with twentieth-century demands. It is true that we have taken a much more humanitarian view of the handicapped in the last one hundred years; it is true that some new and innovative approaches have been developed to teach children; and it is true that many handicapped individuals who once would have been ignored by the public schools are being prepared for productive citizenship. Nonetheless, it is also true that we still provide special services for less than 40 percent of those who need it, leaving the majority of handicapped students to be coped with in regular classes by teachers who are overburdened and unprepared to deal with specialized problems. Even where children do receive special services, there is no overwhelming evidence that they are better prepared for life than their counterparts in regular education classes.

The request motivating this paper, and others like it, reflects the need for innovative change that permeates our educational programs. Specifically, the question posed was, "What are the promising strategies by which one could, through training, influence regular schools to be more effective in serving handicapped children?" Included in the request was the suggestion that the "promising strategies" could include the training of various types of regular school personnel (support personnel, teachers, supervisors, administrators) and/or the changing of regular school procedures or organization so that the handicapped children may be better served while in halfway or total regular programs.

Since my recent professional experience has been with the Special Education Instructional Materials Center/Regional Media Center Network, I have been asked to address myself to the role of materials as a means of enhancing the regular teacher's ability to serve handicapped children. The strategy I have to suggest can be appropriately applied to the training of both regular and special-class teachers, since both groups are in need of help to do a more effective job in educating handicapped children.

In approaching this assignment, a natural reaction was to go far beyond the assigned topic and to challenge the total process of teacher education. I soon realized that the implications of this reaction not only exceeded the purview of the request, but also surpassed my own capabilities of dealing with the issue. Nevertheless, while toying with my expansive thoughts, I discovered a relatively new document of potentially great importance. Entitled *A Reader's Guide to the Comprehensive Models for Preparing Elementary Teachers*, it is published by the ERIC Clearinghouse on Teacher Education and the American

Association of Colleges for Teacher Education (1969). The publication contains summary reports of the first developmental phase of nine U.S. Office of Education sponsored proposals that were designed as conceptual program models for the training of pre-kindergarten and elementary school (K-8) teachers, including preservice as well as inservice components.

Several exciting features of these nine proposals should be noted. All emanate from a systems analysis point of view and stress the following operational sequence:

1. The establishment of clearcut, broad goals.

2. Specific behavioral objectives to be accomplished in order to reach the goals.

3. Clearly defined performance criteria.

4. Careful and systematic assessment of performance.

5. A continual feedback feature for modifying and purifying the system.

The programs focus on the teacher-trainee as an individual and stress such concepts as self-renewal, individual instruction, self-direction, self-awareness, self-pacing, and the continual shaping of individual skills through identification of objectives, carefully planned action, and, most importantly, continuous feedback. A major innovation emphasized by administrators and absolutely essential in all of the proposals is the articulation of the preservice training of the university program with the inservice training of the public schools. Preservice and inservice training are not seen as two separate and distinct functions but, rather, as two parts of one process that form a continuum to enhance the acquisition of teachers' ongoing skills in meeting the needs of children. This training process encompasses both previous and ongoing experience components and, when accomplished, will be a major breakthrough in teacher education, especially when it is accompanied by comprehensive and meaningful technological (media and material) support systems as suggested by several of the proposals.

This brief overview hardly does justice to the nine program model descriptions included in the volume. However, I believe that the issues identified must be carefully considered and supported by any program that is attempting to upgrade teacher education.

If one accepts the basic premise that bringing about improvements in the education of handicapped children assigned to either special programs or regular classes depends, to a great extent, on the teacher, then bringing about changes in the process of training teachers, by necessity, becomes a major educational goal.

Successful Strategies for Creating Change in Teacher Training—The SEIMC Scene

A successful strategy for training teachers, using instructional methods, materials, and media, has been developed and is being utilized by several of the Regional Special Education Instructional Materials Centers (SEIMCs). In an attempt to effectively modify both the structure and content of inservice teacher-training programs, the SEIMCs developed a strategy of cooperative liaison among several agencies—the Regional SEIMC, the state department of education, and Associate SEIMCs.

To set the stage adequately for describing this strategy, a brief statement of several Special Education IMC/RMC Network functions is necessary. A major purpose of the Network is to provide systems and resources so that significant and relevant educational materials are readily available to all teachers of handicapped children. Underlying this purpose is the firm belief that mere exposure to new methods, materials, and media is not sufficient to change teacher behavior and ultimately to effect changes in student behavior. Consequently, an objective of the SEIMCs has been to train teachers to analyze materials carefully according to the type of learning they encourage, to assess the learning modes and needs of individual children, and then to match materials to children in a meaningful way. In essence, the training procedure is a systematic attempt to individualize instruction through prescriptive teaching.

During the five years of their evolution, the Regional SEIMCs and RMCs have employed a spectrum of approaches to meet this objective, including workshops, institutes, inservice training programs, traveling demonstration clinics, and other methods. It quickly became apparent that the Regional SEIMCs could not adequately serve every special educator in his assigned area because of distances involved, limited staff, and lack of resources. Associate Special Education Instructional Materials Centers (ASEIMCs) were developed to resolve this problem. In most cases, the ASEIMCs established by state education agencies have been funded out of federal formula grant funds (ESEA Titles III, VI) and serve a much more circumscribed geographic population than the Regional Centers. ASEIMCs as depositories of materials are staffed minimally with one materials specialist and/or one master teacher to provide a focal site for consultation and teacher training within that geographic area. Although the Regional Centers continue to play a supportive and consultative role to the ASEIMCs, these local centers, of which there are now about 300 in the United States, are seen as extensions of the state department of education primarily responsive to the state and local areas in which they serve. Several states have established comprehensive intrastate

networks of ASEIMCs, and a great majority of states have established one or more associate centers.

ASEIMCs have also been established in colleges and universities. These centers usually place a heavier emphasis on the training of students who are preparing to become teachers rather than on the teacher who is already in the classroom. The purpose here, and a highly justifiable one, is to give the teacher-in-training a great array of alternatives (i.e., methods, materials, media) for meeting individual students' needs before she is overwhelmed by the variety of students' learning patterns.

With the establishment of ASEIMCs, the role of the Regional Centers has shifted from attempts to directly personalize services for teachers to attempts to provide support services to the Associate Centers. These support services include not only assistance in the area of acquisition, cataloging, evaluation, and storage of materials but, more pertinently, assistance in the preparation of inservice teacher-training programs, which can be packaged and used by other agencies with a minimum of personnel training. Thus, within a region, a cooperative relation has emerged between the Regional SEIMC, the state department of education, and Associate SEIMCs.

The Role of the Regional Center—Coordinator of Efforts to Improve Teacher Training

With this basic explanation of Network functions, it now seems meaningful to return to a discussion of an inservice training strategy being perfected by one Regional Center. The program is based on the premise that the basic responsibility for inservice training of teachers lies within the state education agency, which is most aware of the needs of its particular state, and also has established relations with Associate SEIMCs, intermediate educational agencies, and local school districts.

The strategy calls for the state education agency to contract with the Regional SEIMC to conduct short-term, intensive, highly specialized institutes in selected content areas for selected participants.

1. *Participant selection.* Participant selection is delegated to the state education agency with the following patterns providing efficiency and effectiveness:

ASEIMC personnel. Where a state has developed a number of Associate Centers or a statewise network of Centers the Regional Center structures institutes to train ASEIMC personnel in new types and applications of materials and instructional technology. In addition, the institute is structured to prepare ASEIMC personnel to conduct similar institutes with teachers in their respective areas. In this way, the efforts of the Regional SEIMC are geometrically multiplied.

Efficiency results from the fact that not every agency has to develop its own complete inservice program, and potentially many more teachers can receive training. (It should be noted that in spite of the fact that most of the ASEIMCs have been established with Title VI funds, their services are not limited exclusively to teachers who work in special education classes. Regular teachers who have handicapped children in their classes may also use the services of the ASEIMC.)

Instructional teams from school districts. Selected or applicant school districts should be required (or strongly requested) to send teams of personnel as, for example, an administrator (superintendent, assistant superintendent, or principal), two regular class teachers, and a special education teacher; or a supervisor or curriculum consultant, two regular teachers, a special class teacher, and two aides.

The contingent does not have to come from the same building (though that may be desirable) but a team should be constituted from the same school district. The philosophy is that the administrator/supervisor/consultant-type person needs to be acquainted with and supportive of the new materials, methods, and learning strategies that are being taught. Beyond that, and even more important, the positive experience of administrative and supervisory personnel at the institute increases the likelihood that these new procedures will be initiated in other classes in the home district as well as in the classes of those teachers who attended the institute. The presence of both regular and special class teachers has positive side effects, in addition to the content learned, inasmuch as it bridges the gap that has previously existed between them and provides the environment in which they can share ideas and resources. It also paves the way for easier transfer of students from one type of class to the other when the need arises. Including aides with the personnel at an institute also has positive psychological ramifications in that it boosts aide status as it trains her in other than clerical skills. Moreover, adding to the aide's skills allows the classroom teacher to have greater freedom in the tasks that only she can best perform. Another personnel participant pattern that has not been attempted is the combination of school psychologists and counselors with teachers.

Beyond the mutual support benefits that accrue when selected teams attend the institutes, there is the likelihood that these teams will carry the training program back to the other personnel in the school district. The potential multiplying aspects of this hierarchical "spread of effect" concept is staggering. When assimilated by the system, its potency is further increased because the institute has strongly urged each participating unit to conduct at least one or two such institutes with peers in its own sphere of operation.

Follow-up is essential. Regional Centers can perform a follow-up function with ASEIMCs, ASEIMCs can follow-up with school dis-

tricts, and so on. This service might materialize in the form of supplying materials, consultation on implementation, and other assistance.

2. *Content selection.* The matter of content selection for the institute is also delegated to the state education agency and is based on its analysis of the needs of the state or on requests from local education agencies and/or ASEIMCs. The Regional SEIMC may also make recommendations based on its constant monitoring and awareness of new materials, programs, trends, methods, and discoveries. The focus may be in any of three areas: program content, such as early childhood or vocational education for the handicapped or reading for the mentally retarded; methodological content, such as the individualization of instruction, behavior modification, or prescriptive teaching; or instructional technology content, such as multimedia learning systems or teacher-made materials, or in the development, application, and evaluation of materials.

3. *Institute mechanics.* The mechanics of the institute are handled by the Regional SEIMC. An initial assessment is made of the participants' understanding of the content to be covered; general information in small increments is given in brief, large-group meetings with presentations made by "experts" (often master teachers); immediate application and reinforcement of the large-group learning is made in small-group sessions (not more than 12) that are led by Regional Center staff, SEA personnel, or specially trained master teachers; large- and small-group sessions are carefully sequenced with exposure to and involvement with supporting materials and media; and immediate, continual feedback on individual performance in the small groups is given to every participant during the course of the institute. A final assessment of progress is made and given to the participants before they depart. Over 200 personnel have participated in the 3½-day institutes successfully conducted to date.

4. *Cooperative and coordinated aspects.* An outstanding and extremely important by-product of this training strategy is the emergence of cooperation and coordination aspects among various agencies: Regional SEIMC (university), state education agency, ASEIMC, and local education agency. Furthermore, this coordinated program provides a potentially powerful vehicle for the massive communication of improved educational practice, which is currently a high priority of the U.S. Office of Education in response to Congressional and societal demands that education must demonstrate constructive change. In addition, it sensitively responds to needs of the practitioner. Training is planned and implemented with the goal of providing resources to teachers, administrators, and support personnel for improving the education of children. In focusing on the unique learning needs of handicapped children, regular education personnel will have a tendency to give more attention to meeting the unique learning needs of all children.

A Call to Commitment

Instructional materials constitute an important but not a sole basis for the training of teachers. They provide a vehicle for developing a systematic and comprehensive approach to the total learning needs of individual children. The SEIMCs have proceeded strongly with this philosophy in developing their role as a resource to teachers and, consequently, they "peddle" materials only as a means to this much broader goal. Materials enhance the teaching content; materials undergird methodology; and materials can even provide information to students. However, only the teacher can manage the total instructional process—content, methods, materials—to maximize the learning potential of each child. She needs help, nonetheless, in maintaining an awareness of new developments and in applying them to her teaching situation.

Summary

The training formula here described advances the teacher-updating function, stimulates maximum content flexibility, fosters a cooperative and constructive effort among several agencies, and offers the potential for reaching a very large number of teachers.

It is our joint intent to improve the quality of educational personnel training. Perhaps no one other thrust will be so significant in precipitating change in the education of exceptional children. To that purpose, I recommend financial and ideologic support for this strategy as a *formula for change*.

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Handicapped Children And The Regular Classroom

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This paper is based on the author's two-year experience as a member of a public-school and university program-development team* working in the Santa Monica Schools in California formulating "The Madison School Plan for Exceptional Children." This plan attempts to bring hard-of-hearing, blind, educable mentally retarded, learning disability, and emotionally disturbed children into a single school and to provide them with a combination resource room-integrated regular classroom experience without grouping or teaching according to single categories. I will discuss this plan and what I believe it can offer the field, not from the step-by-step trial-and-error method of its development, but from what I see now as the critical issues with which we have grappled.

The Madison School Plan

To begin with, any attempt to extend regular educational facilities to handicapped children must start with a major shift in the point of view on such children. What is essential at the very beginning is the delineation of a dimension of commonality along which children with diverse problems may be placed rather than the adherence to the multidimension approach implicit in traditional special education (e.g., language usage and understanding, intelligence, sensory and motor functioning, social adjustment, academic achievement). This dimension of commonality must hold promise for pragmatic and practical usefulness in both the resource and regular public school classroom. In The Madison School Plan we have adopted the following dimension: *readiness for regular classroom functioning*. It is an obvious and global dimension yet it is proving to be most effective in our work. It involves consideration of many of the more traditional dimensions utilized by special educators but it focuses on them collectively in terms of requisites for survival and success in the regular classroom. Such considerations include the following traditional dimensions:

1. Needs for special systems of instruction (e.g., braille).
2. Deficits in language usage and comprehension.

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* Other members of the team are Drs. Frank Taylor, Alfred Artuso, Herbert Quay, and Francis Lord; and Mrs. Mary Jane Cheetham, Mr. Michael Solloway, Mr. Ronald Merriman, Miss Karen Clark, Mrs. Bonnie Kramer, Mrs. Bea Rethlake, and Mrs. Linda Williamson.

3. Pre-academic deficits in areas of attention, starting, working, taking part, and doing what you are told.

4. Inadequacies in functioning in traditional learning settings (teacher in front of large class, teacher with group, teacher with individual child, child independent, child with peer group).

5. Lack of susceptibility to traditional reinforcers provided in the regular classroom, such as acquisition of knowledge and skill, knowledge of results, and social approval.

6. Inability to get along with others.

7. Lack of knowiedge of the physical-structural properties of the environment.

8. Limited ability to be neat and right in academic areas.

Grouping arrangements

The point of view inherent in this approach must first provide for the grouping of children along the dimension of readiness for regular classroom functioning and, second, for more in-depth assessment of a child's strengths and weaknesses in the eight areas cited. This order of importance has proven of increasing usefulness. It implies in essence that first you assign children to a grouping category and, once this assignment has been made, you zero in on a detailed assessment over time of their functioning, rather than attempting a full-scale pre-placement assessment, as is often done traditionally. The Madison School Plan grouping arrangement is at four levels: Pre-Academic I, Pre-Academic II, Academic I, and Academic II.

The Pre-Academic I grouping may be described as a largely self-contained class group (8-10 children with a teacher and aide) for children who cannot spend any time in a regular classroom, who need totally individualized instructive programs, who cannot work as members of even a small group, whose pre-academic problems clearly overshadow academic deficits in terms of priority, and who profit markedly from frequent and immediate consequences, such as are provided by a check-mark system backed up by tangible and free-time reward exchanges.

Pre-Academic II is a teacher-small-group setting (6-8 students) in which much instruction is group-oriented for children who are ready to function as members of a small group, who can work for increasing periods of time independently, who need emphasis on language usage and participation in a group, whose academic deficits are of more concern than pre-academic problems, who can spend some limited time in a regular classroom (e.g., physical education, opening exercises in the morning, and selected activities such as music and art), who still need frequent and immediate consequences in the form of a check-mark system with emphasis shifting from tangible and activity exchange to knowledge of results and social approval.

The Academic I grouping is essentially a simulated regular classroom in which 12-18 children work in a teacher-class setting. These children are ready to profit from a traditional grading system using numbers (1—very poor, 2—needs improvement, 3—fair, 4—generally good. 5—very good).

The Academic II grouping is the full-time regular classroom.

All children are assigned to one of these groupings by means of a placement inventory that presents some 35 questions to the teacher or teachers who have had contact with the children in the past. The answers to these questions are weighted for implication for grouping assignment and an initial judgment is made on the basis of the total picture provided by the inventory. Assignment to a grouping is tentative for at any time the child may be re-assigned as he becomes more of a candidate for another placement. Thus, all groupings operate according to the swinging-door concept—a vitally important one for any program attempting to increase participation of the handicapped child in the regular class program. Access in and out, forward or backward, is always possible with a minimum of complication or interpretation from the child's point of view.

Placement assessment

The basis for validating a given child's initial placement or reassigning him to another grouping is provided through an ongoing assessment made by Pre-Academic I and II teachers every 20 minutes, Academic I teachers every hour, and Academic II teachers once a day. This paper cannot detail the description of all the specifics of this assessment. In fact, much of the description to this point has probably left the reader confused, since much discussion regarding physical layout, staff assignment, and other factors has been omitted. Suffice to say that via the check-mark system, the Pre-Academic I and II teachers reflect on the general pre-academic behavioral level of the child in terms of readiness for regular classroom functioning every 20 minutes and they rate it on a 5-point scale. The reliability and validity of these ratings are currently being studied. The teachers also select one of the eight pre-academic and academic behaviors from a hierarchy for emphasis (1. attention, 2. starting, 3. working, 4. taking part, 5. doing what you're told, 6. getting along, 7. being neat, 8. being right). These ratings and selections are pooled weekly and graphed on a percentage basis, thus providing a picture of how ready the child is to be moved toward Academic II. The Academic I and II teachers reflect hourly or daily on the children's efforts, quality of work, and citizenship, using a 5-point scale, and these ratings also are pooled weekly for a summary graph. Although it has not been stressed, achievement testing is undertaken and existing medical and psychological test data are utilized although, as hopefully it will be inferred,

the emphasis is *not* on elaborate pre-assessment but, rather, on the establishment of an on-going assessment provided by the teacher.

The Madison School Plan operates within a learning center that houses one Pre-Academic I, two Pre-Academic II, and one Academic I groupings (a 40 x 60 bungalow on the playground of the Madison School). The daily schedule emphasizes reading, story writing, arithmetic, social studies, and special brailling and language programs for the blind and hard-of-hearing. For purposes of this paper, discussion will shift to the problems encountered in gaining regular school administration and teacher acceptance of this plan. How is such a plan viewed? How willing are regular class teachers to accept handicapped children, provide ratings, and coordinate programs?

Acceptance of exceptional children by regular teachers

It has become increasingly apparent that launching such a program in a regular elementary public school requires considerable pre-planning. It is my contention that special education must not approach such an endeavor from a position of apology or reticence. Rather, from the higher administrative level on down it must be established that district and school policy dictates that those handicapped children who demonstrate the capacity to function in and profit from regular classroom participation be provided that experience. In the past the "super-salesmanship" approach undertaken on an individual, regular classroom teacher level by a special educator has been both frustrating and unsuccessful, in the author's experience. Teachers are often overburdened (or so perceive themselves) with demands and difficulties that can only increase in their estimation with the part-time inclusion of a handicapped child in their classrooms. The Madison School Plan approaches the inclusion of children at the Academic II level in the following ways:

Emotionally disturbed children and children with learning disabilities. Each year the Santa Monica Schools, Department of Special Services, follows a plan of compulsory re-integration for all such children. In June, without the benefit of individual case conferences or psychological testing, each child in a special class for the educationally handicapped is reassigned to a regular classroom at his grade level. Exceptions to this procedure are children who are obviously so disordered or deficient in skills that reassignment even on a temporary basis would be unrealistic. In the fall these children show up in their assigned regular classes. Prior to this time, the regular teachers in these classes are told first, that they are participating in a district-wide reassessment of our educationally handicapped children. Their help is needed in assessing how ready the children might be for at least partial re-integration, and this can only be done by the classroom teachers, not the school psychologist. Second, the teachers are told

that at any time that the child cannot be maintained in the room, we stand ready to re-organize the special class (or learning-center resource program, as in The Madison School Plan) and to begin work with the child again. However, his desk in the regular classroom will remain empty and we will expect help when the child improves so that participation in the classroom program is possible.

Over a two-year period, this plan of compulsory re-integration has been quite successful. The regular class teacher appears to feel from the beginning that she has a responsibility in the school program for the child. Surprisingly, some 20 percent of those reassigned the first year were *never* referred back, and when comparisons were made of those referred back and those not referred back with the judgment of their previous year's teachers regarding their chances of succeeding in a regular class, a one-third error appeared in both directions. That is, one-third of the children seen as ready to return to regular classes were referred back for help and one-third of the children seen as definitely not ready to return were successfully maintained in the regular classroom. More evaluation is necessary regarding what really happened to those not referred back, but it appears that maturation over the summer months, changes in the child's life and family situation, and fortunate "matching" of an accepting, understanding teacher with a child with a particular type of behavior and academic problem often occurred. This teacher-child "match" is seen as particularly important to study and understand. It appears that every teacher has a *range of tolerance for behavioral and academic differences* among her children. A crucial determiner of whether a given handicapped child will survive and succeed in a regular classroom is whether he falls within the individual range of tolerance of a particular teacher. In The Madison School Plan, efforts are underway to try to facilitate this "match" through preparing a specific child to return to a specific regular classroom by strengthening him in areas deemed important by the teacher (e.g., ability to work in particular settings, response to certain tasks, and adequacy in certain behavioral areas).

The continuous assessment procedures used by teachers in Pre-Academic I, II, and Academic I also are being refined so that weekly graphing can be used to predict children's readiness to be moved toward Academic II.

Educable mentally retarded children. These children, at the present time, because of long-time, traditional practices of separate grouping, have not been subject to compulsory re-integration in Santa Monica. Rather, they are placed at the onset of the school year in one of the three groupings: Pre-Academic I or II or Academic I. The regular class teachers are told by the principal that it will be school policy to attempt to integrate as many of these children as possible when their weekly assessment graphs suggest that it is realistic to

consider the action (specific criteria in terms of these graphs are yet to be determined). The liaison to accomplish such initial placement will be done by the principal and school psychologist with the participation of the regular and special class teachers.

Certainly one of the most critical issues the BEPD* must face as it endeavors to explore the facilitation of regular classroom experiences for handicapped children centers on the manpower necessary to accomplish it in any district. I have been concerned for years with the haphazard informality it has been necessary to rely on when one is attempting to arrange integration in regular classrooms for handicapped children. Teachers are collared in the hall or coffee room or called away from their class for a few moments of discussion and decision-making. Once a placement is arranged, who is going to see if it works out and, if not, intervene with an alternate plan? Abandoning the regular teacher with a handicapped child and offering no follow-up assistance can be disastrous to both teacher and child. Arranging frequent meetings between the special and regular teachers and offering to be of assistance with other problem children the regular teacher must deal with, has proven useful in coordinating the integration of handicapped children and winning the teacher over to a cooperative team relationship.

We are currently exploring placing the major coordinating responsibility with the school psychologist and hope to work out a role for him that is reasonable in terms of time and efficiency. My own belief is that with respect to really getting relevant and useful services from psychologists in special education, we must make them front-line partners in the cause, not allow them to remain ivory-tower and armchair consultants. Perhaps this relationship will result in our continuing efforts to validate The Madison School Plan as a viable public-school educational enterprise. It will be absolutely necessary to maintain the weekly assessment ratings in the regular classroom for the retarded children placed there and to review them frequently within the framework of the "swinging-door" concept, that is, if more or less regular classroom time is indicated.

Hard-of-hearing children. These children have presented a fascinating challenge in The Madison School Plan. I have been concerned with the infantilizing and socially-isolated nature of some classes for the deaf I have studied. Placing these children into whatever Pre-Academic or Academic setting was deemed appropriate and then watching the development of independence, social skills, and academic progress that has resulted has truly been a gratifying part of The Madison School Plan. Their integration has been slower to accomplish because of their often serious communication problems and sometimes bizarre behavior. However, using somewhat the same

* Bureau of Educational Personnel Development.

approach as with the retarded children, integrating work with the hard-of-hearing has been increasingly possible.

Blind children. The pre-Madison School Plan program in Santa Monica provided a largely integrated approach for blind youngsters who used the teacher of the blind as a resource consultant. We have had little difficulty maintaining this approach and have found these children (with the exception of one disturbed, blind first-grader) free from pre-academic problems, able to relate successfully, and in need of an enriched academic program with mastery of braille emphasized.

Summary

I have attempted in this paper to give a brief progess report on The Madison School Plan and to share my impressions of the problems and issues facing special education as it moves in the direction of increasingly merging with regular class programs. I am firmly convinced that the "swinging door" concept can be implemented, that resource rooms can replace self-contained rooms for a majority of handicapped children, and that most such children can profit from some time in regular classrooms.

As we continue to develop our plan we are faced, as is the BEPD, with two major questions: (a) What is really in this attempt for the handicapped child? and (b) What is in it for the field of special education in general and a given school district in particular? It will take time to obtain even partial answers to these questions, but they represent a critical agenda for our work in the seventies.

A Strategy For The Training Of Resource Teachers For Handicapped Children

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Handicapped children—the mentally retarded, hearing impaired, speech impaired, visually handicapped, seriously emotionally disturbed, crippled, or health impaired—account for approximately 10 percent of the school-age population of the United States. Yet less than half of the nation's five million handicapped children are receiving special educational services and at least 225,000 additional, trained, professional personnel are needed to work with handicapped children (U.S. Senate, 1968). In the state of Washington in 1967, a total of 23,892 children in 115 school districts were identified as needing either special class placement or itinerant teacher services. Approximately 273 additional classrooms and 371 additional teachers would have been required to meet the needs of these children (State of Washington, 1967).

Since the demand for services far exceeds the supply of facilities and trained personnel, many regular classroom teachers find themselves faced with the problem of dealing with the special needs of handicapped children in their classes. This situation is not necessarily bad. There seems to be no clear-cut evidence that special class placement for handicapped children leads to higher academic achievement or better social adjustment than does placement in regular classes (Sparks & Blackman, 1965; Siegel, 1969); and Haring, Stern, and Cruickshank (1957) have shown that regular teachers show positive attitudes toward handicapped children when they are given information and materials for the education of these children. But information and training in special procedures and instructional materials must be presented systematically. It is at this point that the resource teacher can make a significant contribution.

A Training Program for Teachers

A program of training teachers to work with handicapped children should concentrate on the training of resource teachers who would provide assistance in the classroom for handicapped children and would train regular teachers in special procedures for special children. A resource teacher would work directly in the regular classroom with teachers, training them in methods of individual programming for children with learning or behavior disorders. In many instances, the

resource teacher would maintain a special resource room where children with severe problems could be given intensive training for short periods so that they could be returned to regular classrooms.

A training program for resource teachers should encompass two areas—instructional methods and materials, and principles of behavior management—and should be composed of both didactic and practicum experiences. The program must expose the trainee to a wide variety of instructional programming. With practice, a resource teacher can acquire the wide range of skills he must have to work with handicapped children and to give regular classroom teachers the information and skills needed to teach these children.

The resource teacher must know, first of all, how to teach. As elementary as it may sound, this requirement seems to be overlooked in many instances where "specialists," who often have no classroom experience, help teachers. In order to teach effectively, the resource teacher must be able to identify the sequence of skills that the child should acquire in order to reach a terminal objective. For example, in the process of learning to read (a terminal objective), the resource teacher would need to know what skills are involved in sound recognition, letter recognition, letter-sound association, and so on. After the teacher has determined the sequence of steps that are required in the particular performance he has in mind, he must then be able to select materials that he can use to teach the child the necessary skills. If he is familiar with many materials, he can select those best suited to the task. He should be particularly aware of programmed instructional materials since these are designed to proceed by small, sequential steps through skills leading to a clearly stated terminal objective. However, for those terminal objectives for which programmed materials may be either unavailable or unsatisfactory, the resource teacher will need to rely on his own skills of arranging non-programmed materials into appropriate, carefully planned sequences. At the same time, the teacher should be familiar with automated devices for presenting material.

Educational technology, in the forms of programmed instruction and automated teaching devices, has both simplified and complicated the teacher's task. Machines may make the presentation of material easier, and thus free the teacher from routine tasks, but the ultimate responsibility for the material rests with the teacher who must choose with particular care for the handicapped child's special needs. Therefore, it is necessary that a teacher have a means of evaluating the content choices he has made as well as the method by which he teaches.

Regardless of what skills (content) are being taught and what methods are used to teach them, a pupil's successful acquisition of those skills should be manifest in his academic performance. An evaluation of student performance is a very good way of assessing the

effectiveness of any teaching method, be it Montessori or programmed instruction. For this reason, it is necessary for the teacher to be taught how to use the procedures of continuous measurement of performance, data display, and analysis of data as a basis for making subsequent decisions concerning each child's educational program. If the teacher has an ongoing record of each child's performance, he can use this information to select the materials and classroom conditions that promote the best possible performance from each child. Practicum experiences in the classroom are probably the best means to teach procedures of measurement and the recording of data. Behavior modification is a highly empirical science and the teacher needs the practical experience of working with a group of children in a classroom at every level of training.

The following steps might be considered as a training sequence for teachers:

Pinpointing behavior. The initial step in the training sequence is practice in pinpointing the specific behavior or behaviors to be changed. These target behaviors must be observable and they must be under the control of the child. They must have the characteristics of a movement cycle, which are (a) the behavior must have a definite beginning and end, and (b) the behavior must be repeatable. Thus, when we look at behavior in a classroom that may appear to be very complex, instead of saying that a child is emotionally disturbed, mentally retarded, or hyperactive, we reduce the child's behavior to movement cycles. For example, the hyperactive child may spend a lot of time out of his seat; a behavior that we observe, that the child controls, that has a definite beginning (as soon as the child leaves his seat), a definite end (when the child returns to his seat), and is repeatable. A trainee would probably be asked to define a social-behavior movement cycle, such as out-of-seat or talking without permission, as well as an academic-behavior movement cycle, such as writing letters. When he had demonstrated a high consistent rate of pinpointing such behaviors, he could move on to the next step.

Counting. When a behavior has been pinpointed, it can be counted. The trainee's second task would be to become skillful in keeping an accurate record of the number of times a behavior occurs. The total number of occurrences is then divided by the number of minutes during which the observer was watching for that behavior and the rate of response is obtained. For example, if an observer counted 10 out-of-seat movement cycles during a 20-minute observation period, the rate of response for this particular behavior would be 10 divided by 20 or 0.5 responses per minute. Once the trainee can accurately count movement cycles and determine rates of response, he will be ready to move to the third step.

Charting. This step involves learning how to chart rates of re-

sponse for visual display. Charting procedures are relatively mechanical and would probably fall to a classroom aide in a regular classroom, but the teacher must be thoroughly familiar with them so that he may train others to take over the chore. In addition to charting response rates, the teacher charts each new condition that is introduced to influence behavior. Only one condition at a time can be introduced if the data are to be reliable. The effects of each new condition are clearly reflected in changes in response rate. Response rate is probably the most sensitive measure of the effects of the environment on behavior since it offers a continuous record of change. Median response rates are computed for the period in which a particular condition is in effect, allowing a quick comparison of the results of two conditions. Trends can be determined to show whether the behavior is accelerating or decelerating. A trend line is drawn through the data plots of the response rates under one condition, and a second trend line is drawn through the plots under the second condition. The divergence of the second from the first shows the rate of acceleration or deceleration of the behavior under the new condition. Using these tools of analysis, the teacher trainee soon comes to recognize whether a certain condition is having the desired effect and, if it is not, he knows that it must be changed. This choice point brings us to the last step of the sequence.

Changing behavior. When a teacher has determined that either the social or academic behaviors of his handicapped children need to be changed, he must be well aware of the basic principles of behavior modification that facilitate these changes. In any child's environment these are things that influence or evoke behavior from him and there are things that happen as a result of his behavior. The classroom can be described in terms of this behavioral paradigm: A stimulus (such as a teacher's question) evokes a response (the student's answer), which is then strengthened by reinforcement (the teacher smiles and says, "Very good"). Positive reinforcement, which is any pleasing or rewarding event that follows the response, increases the probability that the response will occur again in the presence of the same or a similar stimulus. Positive reinforcement will therefore increase the response rate. The contingencies in the environment are the relations between the response and the conditions that evoke and reinforce it. What is crucial at this point is that the teacher understand how to arrange these conditions to evoke and strengthen desirable behaviors.

In fact, the teacher's behavior can be considered as an integral part of the child's environment—as both an antecedent of and a consequent condition to a child's behavior. For example, almost everything that the teacher does in the way of teaching is designed to bring about certain desirable behaviors in children. The teacher evokes such responses as reading, writing, working arithmetic problems, and playing cooperatively with other children. The teacher serves as a conse-

quent condition to the children's responses when she gives social approval for them. This adult social approval is one of the most powerful forms of reinforcement available in a classroom. Thus, by systematically identifying and manipulating the contingencies of the environment (i.e., arranging instructional materials and using reinforcement), the teacher shapes the behavior of the children in the classroom. For handicapped children who do not respond in the same way or at the same rate as do normal children, the use of contingency management is an effective technique to modify behaviors.

The same procedures of contingency management that a teacher uses in teaching a child can be used to teach a teacher how to teach. The resource teacher in training is a learner just as is the child who is trying to learn long division. Both have a set of entering behaviors comprised of a certain level of skills, and both wish to reach certain terminal objectives. For the child, it may be to get the correct answer to $4982 \div 75$; for the resource teacher, it will be to handle the problems of handicapped children and to train teachers to teach them effectively. Both the child and the teacher acquire information and skills as they respond to the conditions of the environment.

To illustrate how a training sequence was used to train resource teachers (called advisers) from the Seattle area, a description of the training follows (Haring & Lovitt, 1969). Six training steps were scheduled for the project advisers:

1. orientation,
2. observation,
3. assessment,
4. target specification,
5. modification, and
6. communication.

The first training exercise consisted of background readings on the methods of behavior management. Several readings were assigned along with lists of study questions. The second training step consisted of three observation sessions at the Experimental Education Unit. The third training activity required that the advisers perform a series of academic assessments. Following these assessments, the advisers listed the items or events pertinent to the evaluation (materials, instructions, subsequent events) and recorded pupil performance in terms of the number of items answered correctly per unit of time. Each of the project teachers performed three academic assessments:

1. evaluation of a student from a classroom at the Experimental Education Unit,
2. assistance to a fellowship student preparing to conduct an evaluation, and
3. evaluation of a child referred from the Division of Child Health.

Following the latter assessment, each project teacher presented his data at a Division of Child Health Case-Conference.

Following the academic assessment of a student from an Experimental Education Unit classroom, each teacher selected one of the child's behaviors. The project teachers were required to observe, record, and chart the rate at which this target behavior occurred. They wrote a brief description of (a) the relevant events occurring during the observation, (b) their justification for selecting the target behavior, and (c) the criterion for terminating their observations.

The fifth training step required the advisers to remediate behavior problems. Each adviser was assigned at least one student from a class at the Experimental Education Unit and another student from his school district. The advisers then designed and implemented curricular or procedural techniques to alter the target behaviors.

The sixth training phase included several steps designed to facilitate the adviser's return to his district school. This phase principally involved communicating with teachers at the home school.

Specific objectives for the advisers in this project included the ability to perform the following teaching tasks:

1. Pinpoint behavior efficiently and precisely.
2. Accurately complete and use the recording devices used in the classroom setting.
3. Accurately complete plan sheets.
4. Count behavior.
5. Devise an efficient counting tool or device.
6. Proficiently plot data (3 plots per minute) using all conventions.
7. Make decisions about change based on a student's data.
8. Modify any aspect of a program to produce effective conditions for learning.
9. Demonstrate familiarity with both teachers' manuals and students' manuals for instructional material appropriate to the group with which the adviser is working. Familiarity should take the form of being able to complete a plan sheet based upon the teacher's manual presentation as well as being able to complete the plan sheets for any adaptations of the material. Familiarity is further defined by knowing what are the ceiling rates, that is, adult rates, for the particular material.
10. Manage programs for 5 to 10 children according to plan sheets.
11. Assess skill levels of a student, using data.

The terminal objectives of any teacher training program must be clearly defined because they represent the skills that the trainee must acquire. The rate of responses demonstrating these skills will indicate how well the trainee is acquiring the skills. The trainer may keep data on the trainee's response rate but it is probably most desirable for the trainee to keep his own records of his behavior. The terminal objectives might be similar to those listed for the Haring and Lovitt (1969)

project or they might be more like those suggested by Haring and Fargo (1969):

1. to establish procedures of observing, recording, and analyzing behaviors systematically;
2. to assess child performance in four areas: academic, verbal, social, and physical (the last according to requirements of the classroom);
3. to acquire functional information from the assessment of the children's skills; to select presently available instructional materials within each academic area; to plan programs for sequence and breadth of skill development;
4. to establish during assessment the child's preference for activities that might motivate academic performance;
5. to use assessment information to establish task initiation in the child;
6. to develop systematic procedures for maintaining task performance;
7. to establish efficient performance on instructional programs through systematic contingency management, with the use of continuous response data on the accuracy and efficiency of each child's performance to guide further instructional decisions;
8. to demonstrate the acquisition of these skills with individuals and with groups of children.

When the resource teacher has mastered the skills set forth in the terminal objectives of the training program, he is equipped to use the same training procedures to impart those skills to the regular classroom teacher who must work with a handicapped child. He may also have his own resource room where problem children may be placed for short-term intervention. The primary role of the resource teacher, however, should be that of trainer for regular classroom teachers. When these teachers have mastered the skills of pinpointing, measuring, recording, and analyzing data, and have learned how to manage contingencies, they can set up individualized programs designed to cope with the special problems of the handicapped child.

In the process of teacher training, the same stimulus-response-reinforcement paradigm holds. There are contingencies in the environment that operate on the learning situation. Stimuli may come from prompts given by the trainer instead of from textbooks, and reinforcement may be in the form of praise from the trainer, a paycheck or fellowship stipend, or simply the pleasure of the learning process itself. The techniques of teacher training, however, are the same as those used in teaching handicapped children. The trainee's entering behaviors can be assessed by evaluating his performance in an actual classroom situation. Precision in defining and measuring responses or a child's performance and in identifying, defining, and recording relevant events in the immediate environment (the academic materials,

the teacher's behavior, and other happenings in the classroom that are temporally related to the child's performance) are some of the entering behaviors that can be assessed (Haring & Fargo, 1969). How well a trainee can pinpoint and record behaviors and how well he can manage contingencies in the classroom can be observed and counted.

The teacher-training project referred to (Haring & Lovitt, 1969) utilizes the system of contingency management. This project has been carried out at the University of Washington's Experimental Education Unit, a division of the Child Development and Mental Retardation Center. It was designed to prepare teachers to use the methods described previously and to act as resource teachers in their schools to train other teachers. The four teachers from the Seattle-area school districts were given intensive practicum training in principles of behavior modification. They kept written records of their activities as did the classroom teachers under whom they were being trained. They worked directly in the classroom a good deal of the time; they were prompted in their work by the trainer who used a small transmitter (the trainees used small receivers with earphones to receive the directions). In addition to written records, videotapes were made of the classroom activities; the trainee and the trainer could thus review the visual records of performance. Videotaping should be an important part of any teacher-training sequence. It gives the trainee a chance to observe more objectively his behavior in relation to children and how that behavior affects the behavior of the children he is teaching. It gives him a chance to count his response rates if he has not done so in the classroom.

The evaluation process includes the counting of responses made by the teacher in training. The project included the recording of a trainee's responses as he assessed a child's behavior and assisted another teacher to set up an educational program for a child (Haring & Lovitt, 1969). Records were kept on various forms of teacher-trainee-child interaction as the trainer worked with a trainee. On the basis of these forms of measurement, the effectiveness of the trainee can be determined. Another form of measurement, perhaps the most effective, is the measurement of the effect of a teacher's performance on the performance of pupils. If a trainer has accurate records of the response rates of a classroom of children, he can consider the teacher in training as a new factor in the environment, and he can judge the skillfulness of the trainee by his effects on the performance rates of the children in the class.

Once the resource teacher has been trained, he must then assume responsibility for the training of regular classroom teachers. In the teacher training project conducted by Haring and Lovitt (1969), the trained resource teachers returned to their home school districts. There they conducted projects for regular classroom teachers. At one school,

the resource teacher explained the principles of behavior pinpointing, measuring, and recording, and then required each teacher to pinpoint and measure first, a social behavior of one particular child for a week, then two academic behaviors for a child, and, ultimately, daily performance measures for an entire class in a single academic area. The teachers, when they had completed these assignments, contacted the adviser who showed them how to plot data on a special six-cycle semilogarithmic graph paper* and helped them to decide whether the behaviors measured occurred frequently enough to warrant change. When change was indicated, the resource teacher discussed conditions that might be instituted to bring about that change. The teachers who decided on a certain condition to introduce were asked to keep data for five days and then to contact the resource teacher again to discuss the effectiveness of that condition and whether it should be maintained, withdrawn, or another condition substituted. The teachers who used modification procedures were thus trained in the procedures of pinpointing, measuring, charting, and managing contingencies in their regular classrooms.

This approach, direct intervention with teachers in their own classes rather than direct therapy with pupils, is a very economical use of ancillary personnel. Ordinarily, supportive personnel such as school psychologists, counselors, or remedial teachers are employed in one of two ways. The school psychologist, for example, may come into the classroom and observe the referred child or take him from the class in order to conduct a psychological or educational assessment. By employing these direct intervention procedures, ancillary personnel can see up to 150 children per year. A second intervention plan often followed by remedial teachers is to request classroom teachers to refer those pupils believed to be in need of special assistance. These remedial teachers can perhaps conduct five 50-minute sessions with 3 to 10 children per session. Under optimum conditions and if the remedial teacher returns or rehabilitates some of his clients, he can serve up to 200 children per year.

By contrast, if the adviser is programmed for direct intervention with the teacher rather than the pupil, more pupils can be served. As this project (Haring & Lovitt, 1969) demonstrated, in all four schools virtually all of the children were involved throughout the year in some sort of measurement project. Furthermore, many of these students were measured repeatedly, not just for a single assessment or a few weeks of remedial work.

A second reason the adviser plan is so effective is that teachers are assisted and encouraged in obtaining data from all their pupils,

* Available from Behavior Research Company, Box 3351, Kansas City, Kansas 66103.

not just the exceptional children in their classes. Although early in the project the majority of the advisers' efforts were directed toward solving problems, such as talk-outs, out-of-seats, hitting others, or poor academic performance, a change of emphasis took place near the completion of the project; it involved the teachers more in obtaining continuous measurement in academic areas from all pupils. In this way, teachers were able to identify children with slight learning problems and to consider their particular needs.

By having the advisers work directly with teachers in their own classrooms, the advisers can instruct the teachers to deal with the problems that arise in the class. This procedure is in contrast to what often happens when teachers are relieved of their responsibility for dealing with a child by sending him out of the classroom for someone else to help; by successfully solving difficult classroom situations as they occur, the teacher not only resolves the immediate problem, but gains confidence and often finds that future troublesome problems can be solved with increased acumen.

Another project, funded by the Bureau of Educational Personnel Development of the U.S. Office of Education,* is currently underway at the Experimental Education Unit to train 20 resource teachers over a two-year period. Ten teachers will be selected from school districts in the Seattle area to be trained by intensive practicum experiences at the Unit. After two quarters of training, they will return to the home school districts where they will assume full-time responsibility for a selected classroom of second-or third-grade children, at least three or four of whom are handicapped. The teachers whose classrooms are taken over by the 10 trained teachers will become a second generation of trainees. They will remain in their classrooms for a quarter as apprentices to the trained teachers. During the summer, a special institute will be conducted to give them intensive training and to give the first-generation teachers the opportunity to practice the skills they learned by guiding the learning experiences of the second generation of teachers. The institute will also give the project staff an opportunity to evaluate the skills of the first generation of teachers and zhus, to evaluate the effectiveness of the training sequence. During the year when the second-generation teachers return to their home school districts, 10 teacher aides will be selected, trained to prepare materials for individualized instruction, and placed in the classroom with them. Thus three-member teams consisting of two well-trained teachers and one trained teacher aide will be established in the schools. During the course of the project at least 80 handicapped children will be provided

* A project to provide additional education for experienced teachers to improve learning conditions for the handicapped children in regular classrooms. Project No. OEG-0-9-577001-3580-(721).

with individualized instruction in regular classrooms, thus alleviating the need for approximately eight special classes. A report recently completed by several of the resource teachers trained at the Experimental Education Unit indicated that they were providing services to 225 students in their home school districts during the final week of their projects.

Summary

Because of the lack of special education personnel, many handicapped children are served in regular classrooms. The training of resource teachers is an effective means of dealing with the problem presented by these children. A resource teacher can work directly with teachers in a regular classroom to teach them methods of instruction, procedures of continuous measurement and analysis of data, and principles of behavior modification so that they may individualize instruction to suit the needs of handicapped children. The resource teacher should be trained extensively in the selection of instructional materials, the sequencing of levels of skill acquisition, the measurement of behaviors, the interpretation of data, and the management of classroom contingencies to modify behaviors.

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BIOGRAPHICAL NOTES

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Chief, Career Opportunities-Urban/Rural School Development Programs Branch, Bureau of Educational Personnel Development, U.S. Office of Education.

B.A. (political science) and M.A. (social science) from Brooklyn College, N.Y.; presently a doctoral candidate in the Administrative Career Program, Harvard University Graduate School of Education.

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Educated at Augsburg College and University of Minnesota (Ph.D. 1955, educational psychology and educational administration).

Experience includes public-school teaching (mathematics); chairman, Department of Psychology and Education, Augsburg College (1949-56); district psychologist (Seattle, Wash.); Director, Tacoma-Pierce County Study of the Education of Exceptional Children; and university teaching (Pacific Lutheran University, University of Washington, and Oregon College of Education).

President, Washington State Personnel and Guidance Association. Member, Leadership Training Institute Panel on Special Education, EPDA, 1969-71. Member of EPDA advisory teams in both counseling and special education. Consultant for study of special education administration, Dayton, Ohio. Participant, Institute for Administrators of Pupil Personnel Services (Invitational Conference, Harvard University, 1963).

Major publications in A. Stiller (Ed.) *School Counseling 1967, A View from Within*; in V. F. Calia and B. Wall, *Pupil Personnel Administration*; and, with others, *Education for Exceptional Children* (Tacoma Public Schools, 1958).

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Past experience: teacher for the educably mentally retarded; psychologist, county schools and courts, and supervisor, special education (Somerset, Pa.); psychological consultant, Pennsylvania Bureau of Vocational Rehabilitation; aviation and clinical psychologist, U.S. Army; and lecturer at New Haven State Teachers College, Yale University, Utah State University, McNeese State College, University of Minnesota, and Northwestern State College. Special mission to Japan and Korea, research in psychological warfare; and director of Classified Research Project, American Institutes for Research (1952). Professor, University of Pittsburgh Faculty in Ecuador, educational consultant, U.S. Agency for International Development, Ecuador (1963); and director of special education and The Educational Clinic, Board of Education (Pittsburgh, Pa.).

Associate editor, *Exceptional Children*; and divisional editor, *American Journal of Mental Deficiency*. Formerly, regional chairman, Committee on Psychology; president, Council on Exceptional Children (1960-61); Department president, N.E.A. (1960-61); president, Pennsylvania Conference on Exceptional Children; and president, Pennsylvania Educational Research Association.

Vice chairman, Governor's Committee on Handicapped Children (Pennsylvania, 1960-64); United Nation's medal for service in Korea in psychological warfare (1952); award, Pennsylvania Federation, C.E.C. for outstanding contributions to special education and rehabilitation (1965); and award for service, National Accreditation Council, services to the blind and visually handicapped.

Consultant to U.S. Office of Education and Dept. of Defense; to states of Arkansas, Delaware, Maryland, Ohio, Pennsylvania, and Rhode Island; to Universities: Auburn, North Carolina, Indiana State (in Pennsylvania) and Virginia; and to other, federal, state, local, and business agencies. Grant to study early childhood education and education of the Maori (New Zealand).

Recent publications in *The International Journal of the Blind*; *The Sight-Saving Review*; *The Journal of Teacher Education*; *Journal of School Psychology*; *American Annals of the Deaf*; and in many other national journals and university and government publications.

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Educated at New York University, Teachers' College, Columbia University, and Pennsylvania State University (Ed.D.).

Former teacher of the mentally retarded; professor and chairman of special education at Southern Connecticut State College; chairman of special education department at Boston University (1961-69).

In 1967, received award "for outstanding contributions to the advancement of psychology as a science, as a profession, and as a means of promoting human welfare" at the Annual Meeting of the Massachusetts Psychological Association. Annual award, Massachusetts Association for Retarded Children 1968. Special citation from the governor of Massachusetts, 1969, in recognition of service to the Commonwealth as its Assistant Commissioner and Director of the Division of Mental Retardation, while on a year's leave of absence from Boston University. Citations also from the President's Committee on Mental Retardation, the American Association on Mental Deficiency, and other professional and voluntary organizations.

Various consultantships to federal agencies, state departments of education and mental health, publishing firms, associations for retarded children, universities, and related organizations in New York, New England, and other sections of the United States. Currently, he is on the National Advisory Committees of the R & D Centers for Handicapped Children of Teachers College, Columbia University and the University of Indiana; research consultant and panel member on professional training for the U.S. Office of Education and the National Institute on Mental Health; and research project director, Massachusetts Advisory Council on Education, among other appointments.

Recent publications are *Exodus from Pandemonium: Human Abuse and a Reformation of Public Policy* (1970); *The Educability of Intelligence*, with F. Garfunkel (Council for Exceptional Children, 1969); *The Intellectually Disenfranchised: Impoverished Learners and Their Teachers* (Community Mental Health Monograph Series of the Mass. Dept. of Mental Health, 1967); *Children Who Appear Different*, with W. Kvaraceus and H. Blank (in press); contributed chapters to many volumes of collected papers; and articles published in the *American Journal of Mental Deficiency*, *The Training School Bulletin*, *Mental*

Retardation, Review of Educational Research, Exceptional Children, Journal of Education, and many other journals.

Listed in *Who's Who in America.*

Davis, Malcolm D.

Chief, Special Education Training Branch, Bureau of Educational Personnel Development, U.S. Office of Education.

Educated at University of Oklahoma (Ph.D.).

Formerly, classroom teacher and college instructor; school psychologist in numerous communities; director, Project for Facilitating Integration, Arlington, Virginia; and state supervisor of Psychological Services, Maryland State Department of Education.

Deno, Evelyn N.

Professor of Educational Psychology, Director of Psycho-Educational Center, and Director of professional training program in the learning disability area, Department of Special Education, University of Minnesota.

Educated at the University of Minnesota (Ph.D. 1958, child development and psychology).

Past experience as elementary and nursery school teacher; college instructor in elementary education; instructor in the Institute of Child Development, U. of M. (1950-58); and director of Special Education and Rehabilitation, Minneapolis Public Schools (1958-67).

Currently a consultant, U.S. Office of Education, Bureau for Education of Handicapped, and past and present membership on many state and local boards and committees concerned with the education and training of the handicapped. Recipient, in 1967, of Civitan Club's first citizenship award for the community person making the most significant contribution to services for the handicapped.

Major publications in *Learning Disorders,* vol. 2 (Special Child Publications); and in *Exceptional Children, Minnesota Journal of Education, Proceedings of the Sixth Delaware Conference on the Handicapped Child, American Psychologist, Child Development,* and *New Vocational Pathways for the Retarded* (Memorial Monograph in honor of Abraham Jacobs, American Personnel and Guidance Association).

Erickson, Donald K.

Director, ERIC Clearinghouse on Exceptional Children; Executive Director, Special Education IMC/RMC Network; Director, Project for the Development of Communications in Special Education; Assistant Executive Secretary of the Council for Exceptional Children.

Educated at Fort Wayne Bible College, Wheaton College, Fuller Theological Seminary, and University of Southern California (Ph.D. Dec. 1968). Graduate work in christian education, guidance and counseling, educational psychology, education of exceptional children, with specialization in mental retardation.

Background experience in youth ministry and as junior high school teacher; as psychologist (Pasadena Child Development Clinic); school psychologist and director of special education diagnostic clinic (Pasadena Unified School District); and university lecturer (U.S.C.).

Author of nine articles on information systems in education.

Haring, Norris, G.

Professor of Education, Lecturer in Dept. of Pediatrics (School of Medicine), Director, Experimental Education Unit, Child Development and Mental Retardation Center, University of Washington.

Educated at Kearney State, University of Nebraska, Merrill-Palmer Institute, and Syracuse University (Ed.D. 1956, special education).

Past experience: director of special education (Arlington, Va. public schools); associate professor and coordinator of special education, University of Maryland; professor of education and associate Professor of pediatrics, educational director of Children's Rehabilitation Unit, and Chairman in Child Development (Medical Center), University of Kansas.

Chairman of Task Force II (U.S. Office of Education and U.S. Public Health Service) and member of other national and state committees concerned with handicapped children and special education; associate editor, *Exceptional Children*; field adviser in special projects, Division of Training Programs, U.S. Office of Education; and consultant to Office of State Superintendent of Public Instruction on Urban, Racial, Disadvantaged Program.

Recent publications include *Educating Emotionally Disturbed Children*, with P. E. Lakin (1962); *Attending and Responding* (1968); editor of *Minimal Brain Dysfunction—National Project on Learning Disabilities in Children* (1969); *A Strategy for Training Resource Teachers for Handicapped Children* (1970, in press); *To Precision Teaching—An Initial Training Sequence* (1970, Special Child Publications); *Analysis and Modification of Classroom Behavior*, with P. E. Lakin (in press); and many chapters in collected volumes, governmental and university reports, and articles in journals.

Hewett, Frank M.

Associate Professor of Education and Psychiatry; Chairman, Area of Special Education; Head, The Neuropsychiatric Institute School, University of California, Los Angeles.

Educated at U.C.L.A. (Ph.D. 1961, clinical psychology).

Previous experience: teacher and supervisor of Psychology Clinic School, U.C.L.A.; and assistant professor of medical psychology, School of Medicine, U.C.L.A.

Associate Editor, *Exceptional Children*; member of editorial boards of *Journal of Learning Disabilities* and *Dimensions in Early Learning*; advisory council member in Special Education of Instructional Materials Center, University of Southern California; and past member of National Advisory Board on Dyslexia and Related Reading Disorders to Secretary of H.E.W.

Author, with J. Coleman, F. Berres, and W. Briscoe, of *The Deep-Sea Adventure Series* (Remedial Readers); The Santa Monica Project: Evaluation of an Engineered Classroom Design with Emotionally Disturbed Children (with F. Taylor and A. Artuso) in *Exceptional Children*; An Engineered Classroom Design for Emotionally Disturbed Children, *Educational Therapy*, vol. 2 (Special Child Publications, 1968); *The Emotionally Disturbed Child in the Classroom. A Developmental Strategy for Educating Children with Maladaptive Behavior* (1968); and many articles in the *Journal of Clinical Psychology, American Journal of Orthopsychiatry, Mental Hygiene, Exceptional Children*, and other journals that have been reprinted in volumes of collected papers.

Lewis, Arthur J.

Chairman, Department of Curriculum and Instruction and Professor of Education, University of Florida.

Educated at University of Denver and Teachers' College, Columbia University, (Ed.D.).

His career began in 1941 as a public school teacher in Denver, Colo., where he went on to hold various administrative posts in the public school system, including director of the Department of Instruction. He joined the Minneapolis, Minn. public schools as assistant superintendent in 1952. Program consultant in Iran for the Ford Foundation (1960-1961). Joined faculty at Teachers' College, Columbia University as a professor of education and director of the Peace Corps Training Program for Nigeria, 1962; chief of

party. Teachers for East Africa, 1963; acting coordinator of studies at the Institute for Education in Africa, 1964-65; chairman of the Department of Educational Administration, 1965-70. He has also held a number of advisory posts, including chairman of the Study Commission on Higher Education in Sierra Leone, 1968, and a member of the Overseas Liaison Committee of the American Council on Education (since 1967).

Author of *Guidelines for the Planning of External Aid Projects in Education* and a contributor to *Curriculum Improvement in Public School Systems* and *In-Service Education*; other publications have appeared in *Elementary Principal Journal* and *Educational Leadership*.

Lord, Francis E.

Visiting Professor of Special Education, University of Arizona.

Educated at Oregon College of Education, Eastern Michigan University, University of Chicago, University of Michigan (Ph.D., 1936, education and geography), and Ohio State University.

Director of special education, Eastern Michigan University (1941-53); chairman, Department of Special Education, and Director of Special Education Center, California State College, L.A. (1953-1969); other university appointments at Eastern Michigan University, University of Michigan, Syracuse University, University of Washington, University of Hawaii, and U.C.L.A.

Past president of Council for Exceptional Children, Dept. of NEA; also served in organization on Board of Directors, Publications Committee, and Honor Committee. Editor, *Exceptional Children* (1943-1953). Chairman, Committee on Study of Competencies of College Teachers of Special Education: a national study under the sponsorship of the U.S. Office of Education.

Major publications on special education in *Encyclopedia of Educational Research* (1941 and 1950 editions), *Forty-ninth Yearbook of National Society for Study of Education*, and *Exceptional Children*. Project director or principal investigator of four research and demonstration grants, U.S. Office of Education. Listed in *Leaders in Education* and *Who's Who in the West*.

Martinson, Melton C.

Director, Administrative Training Program; Project Director, Regional Educational Resource Center for Handicapped Children; and Project Director, National Consortium of Institutions for Training of Administrators in Special Education; University of Oregon.

Educated at River Falls State University and University of Wisconsin (Ph.D. 1965 in education of exceptional children and educational psychology).

Previous experience: teacher of regular and special education; program director of special education and school psychologist (Beloit, Wis.); supervisor/psychologist, Wisconsin State Dept. of Public Instruction, Bureau for Handicapped Children; consulting psychologist, Central Wisconsin Colony; and, at the University of Oregon, director of administrative training program in special education and project director, Regional Special Education Instructional Materials Center. Principal Investigator and/or project director of seven grants.

Member, National Committee on Documentations of Eminent Special Educators; past section chairman, International Conference, Council for Exceptional Children; and chairman, Regions Committee National Network of Regional Special Education Centers and member of National Board of Directors.

Associate Editor, *Exceptional Children*; editor of section on Special Education Pupil Personnel Services, 1969 edition of *Dictionary of Education* (C. V. Good, Editor). Publications have appeared in *Psychiatric Bulletin*, *Exceptional Children*, and *Educational Reporter*.

Melcher, John W.

Assistant State Superintendent, Department of Public Instruction, Administrator, Division for Handicapped Children, State of Wisconsin.

Educated at University of Wisconsin-Milwaukee and University of Wisconsin, Madison (M.S. 1952, plus two years additional graduate work).

Past experience as a critique teacher in the Milwaukee public schools and University of Wisconsin-Milwaukee; state supervisor of exceptional children and consulting psychologist to Crippled Children Division and Wisconsin School for the Visually Handicapped; and lecturer in special education administration and curriculum, University of Wisconsin, Madison.

Member of President Nixon's Task Force on the Physically Handicapped; past president of Council for Exceptional Children, associate editor of the journal, and member of the Professional Standards Committee; member of the National Advisory Committee on the Education of the Deaf; and member of the Advisory Committee on Training, U.S. Office of Education, Bureau for Education for the Handicapped, as well as consultant, Administration Public Law 85-926, 88-64, research grants; and member of the panel of consultants for the Handicapped-Education Professions Development Act, U.S. Office of Education.

In 1970, he received a citation for distinguished service from the U.S. Office of Education, Bureau for Education for the Handicapped.

Morse, William C.

Professor, Educational Psychology and Psychology, University of Michigan; Chairman, combined program in Education and Psychology; Research Director, Training of Teachers of Disturbed Preschool Children, NIMH grant.

Educated at University of Pittsburgh and University of Michigan (Ph.D. 1947).

Consultant in special education for disturbed children to Ann Arbor and Livonia public schools; Hawthorn Center educational programs for the disturbed child; and U.S. Office of Education, Bureau of Special Education, National Advisory Committee, Research Committee.

Author of *Conflict in the Classroom: The Education of Emotionally Disturbed Children*, with N. Long and R. Newman (rev. 1971); *Readings in Educational Psychology*, with G. M. Wingo (1971); and *Psychology and Teaching*, with G. M. Wingo (rev. 1969). Other publications include chapters in Feather, Bryant, and Olson (Eds.) *Children Psychology and the Schools*; W. Cruickshank and O. Johnston (Eds.) *Education of Exceptional Children and Youth*; E. L. Cowen, E. A. Gardner, and M. Zax (Eds.) *Emergent Approaches to Mental Health Problems*; W. Cruickshank (Ed.) *The Teaching of Brain-Injured Children;* and *Proceedings of the Fifth Delaware Conference on the Handicapped Child*; and articles in *Childhood Education* and other publications.

Reynolds, Maynard C.

Professor and Chairman, Department of Special Education, University of Minnesota. Director, Leadership Training Institute, Special Education Branch, Bureau for Educational Personnel Development, U.S. Office of Education.

Educated at Moorhead State College and University of Minnesota (Ph.D. 1950, educational psychology).

Formerly, Director, Psycho-Educational Clinic, U. of M. (1951-56), with college teaching experience at Iowa State Teachers College and Long Beach State College (Calif.).

Currently, Chairman of the Policies Commission, Council for Exceptional Children, and Member, Publications Committee and Associate Editor, *Exceptional Children*. Member, President's National Advisory Council on Supplementary Centers and Innovative Projects (Title III, ESEA); Member, Inter-Council Committee on Construction of University Affiliated Facilities for the Mentally Retarded, Rehabilitation Services Administration, SRS, Dept. of H.E.W.; and Member, Board of Sponsors, Minnesota Association for Retarded Children. Past Chairman (1957-61) and current Member, Advisory Board on Handicapped and Gifted Children, Minnesota State (statutary).

Past consultant and advisory activities include the following appointments: Consultant, USOE Fellowship Program in Education of Mentally Retarded under PL 85-926 and PL 88-164 (1959-66); resource person on mental deficiency, White House Conference on Children and Youth (1960); Advisor to the Educational Policies Commission (1964-67); Member, Advisory Committee to U.S. Office of Education on Research and Demonstration Grants under PL 88-164 (1965-69); Member, Committee on Visitation and Appraisal, National Council for the Accreditation of Teacher Education (1967-69); Chairman, Advisory Committee, State Project on Mental Retardation (The Four County Project) supported by U.S. Children's Bureau (1958-66); Chairman, Governor's Advisory Committee on the mentally retarded (1961-62); and Chairman, Minnesota State Department of Education Advisory Committee on Programs under ESEA Title I, PL 89-10 (1967-68).

Many publications on handicapped children in journals.

Listed in *Who's Who in America* and *American Men of Science*.

Trippe, Matthew J.

Professor of Education, University of Michigan.

Educated at St. Lawrence University and Syracuse University (Ph.D., 1958).

Past experience: school psychologist, Syracuse (N.Y.) Cerebral Palsy Association Clinic and School; senior research scientist (psychology) N.Y. State Dept. of Mental Hygiene, Community Mental Health Research Unit. At Syracuse University; assistant research professor and then associate professor of special education; psychologist, Center for the Development of Blind Children; director of research in special education and rehabilitation. Associate professor of special education, director of Project Re-ED Training Program, George Peabody College for Teachers; program specialist, Educational Programs for the Emotionally Disturbed, U.S. Office of Education, Division of Handicapped Children and Youth; chairman, special education and education director, U. of M. Fresh Air Camp, School of Education, U. of M. (1966-69).

Chairman, National N.D.E.A. Institute for Advanced Study in Teaching Disadvantaged Youth (Sponsored by AACTE and USOE); vice-president, Council for Children with Behavior Disorders; board member, American Society for Humanistic Education; member of legislation committee, Council for Exceptional Children; Associate Editor, *Exceptional Children*; and consultant, Nankin Mills School District, Westland, Michigan.

Author of *Services to Blind Children in New York State* (with W. M. Cruickshank), Syracuse U. Press, 1959, and reports on emotional disturbances and mental retardation in children for N.Y. State Department of Mental Hygiene. Major publications in P. Knoblock (Ed.) *Intervention Approaches in Educating Emotionally Disturbed Children*; Castricone and Gallien (Eds.) *A Focus on Maladjusted Children*; W. Cruickshank (Ed.) *Psychology of Exceptional Children and Youth*; J. Hellmuth (Ed.) *Educational Therapy* (Special Child Publications); M. Krugman (Ed.) *Orthopsychiatry and the School*; and in *The High School Journal, Exceptional Children, Michigan Rehabilitation Association Digest*, and *American Journal of Mental Deficiency*.

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Wyatt, Kenneth E.

Coordinator of Crippled and other Health Impaired Unit, Coordinator of State Plans and Administration, and Chief, Special Learning Problems Branch, of Division of Training Programs, Bureau of Education for the Handicapped, U.S. Office of Education.

Educated at Oregon State University, University of Oregon (special education and psychology), and the University of Illinois (Ed. D. 1968, special education and administration).

Background experience as special education teacher; school psychologist; coordinator of psychological services and special education (San Lorenzo, Calif.); and college lecturer (San Jose State College and University of Illinois).

Member of the Board of Directors, United Cerebral Palsy Assn., Washington, D. C.; past president, Oregon Special Education Assn.; and past president, Special Education Section, Oregon Education Assn.