Models for mainstreaming learning

Susan Parker Clow

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MODELS FOR MAINSTREAMING LEARNING
DISABLED STUDENTS

by
Susan Parker Clow

A RESEARCH PAPER
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REQUIREMENTS FOR THE DEGREE OF
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CHAPTER I

INTRODUCTION

With the passage of public law 94-142, the Education for All Handicapped Children Act, special educators have been faced with a role change. There are no longer any questions concerning the advent of mainstreaming as it provides for the education of the handicapped child in the least restrictive setting. The questions that now must be answered are concerned with the implementation of mainstream programs. The purpose of this paper has been to examine different models of mainstreaming for the learning disabled student and to find common characteristics of the more effective models. It is important to approach mainstreaming from several viewpoints. First, the child must be considered. Does he prefer placement in self-contained special education classes to mainstream classes with resource help? Secondly, parents' concerns should be considered. Principals need to take an active role as child advocates. The regular education teachers need to be a priority concern because they will in fact be primarily responsible for the education of the exceptional education student. These roles have been examined in this paper.

Barbara Bateman, a leading authority in the field of learning disabilities, feels that, "mainstreaming handicapped children in regular
classes has generated more public comment than any other aspect of special education." She continues to quote Careth Ellingson as saying, "the Education for All Handicapped Children Act will change the American public school system more drastically than the 1954 Supreme Court ruling on desegregation."¹

The problem researched in this paper was: What are effective models of mainstreaming the learning disabled student? Questions that were approached in the research of this topic were:

1) Why is mainstreaming advantageous?
2) What are some of the disadvantages of mainstream programs?
3) What are the different models for mainstreaming and how effective have they been?
4) What are the roles of the principal, regular education teacher and learning disabilities teacher in mainstream programs?
5) How can mainstream programs be successfully implemented in a school system?

The research was limited to studies that concentrated on the learning disability students since 1968.

Before beginning a review of the research of different models for mainstreaming, it is important to clarify the terminology that has been used in this paper. The term learning disability legally defined in the "Children with Specific Learning Disabilities Act of 1969" stated that:

Children with specific learning disabilities exhibit a disorder in one or more of the basic psychological processes involved in understanding or in using spoken or

written language. These may be manifested in disorders
of listening, thinking, talking, reading, writing,
spelling, or arithmetic. They include conditions which
have been referred to as perceptual handicaps, brain in-
jury, minimal brain dysfunction, dyslexia, developmental
aphasia, etc. They do not include learning problems
which are due primarily to visual, hearing, or motor
handicaps to mental retardation, emotional disturbance
or to environmental deprivation.2

The final definition of learning disabilities as it appeared in the Wiscon-
sin Administrative Code stated that, "the learning disabled child does
not achieve commensurate with ability in one or more areas of oral ex-
pression, listening comprehension, written expression, basic reading
skills, reading comprehension, math calculation, and math reasoning."3

There were three types of programs for learning disabled students
that have been referred to in this paper. The resource program as it is
described in the Wisconsin Administrative Code for Public Instruction,
"is a special education program type located in a regular school, where
the teacher provides for instruction in specific skills areas and the chil-
dren with exceptional educational needs enrolled in this program are in-
tegrated into regular academic programs." The term self-contained pro-
gram, the Wisconsin Administrative Code defines as, "a special education
program type located in the regular or special school building which

2Thomas N. Fairchild and Ferris O. Henson, II, Mainstreaming
p. 10.

3Wisconsin, Public Instruction, Chapter PI 11 Rules for Imple-
menting Subchapter IV of Chapter 115, Wis. Stats. (1975), No. 240,
11.01, section 9.
serves students with exceptional educational needs in all instructional areas.\textsuperscript{4}

The term mainstream program refers to "a delivery system that integrates handicapped children into regular classrooms."\textsuperscript{5} In the mainstream program the exceptional educational needs students are placed "in the regular classroom, and the classroom teacher takes on much of the responsibility for supplying appropriate teaching."\textsuperscript{6} The special educator's job is one of consultant to the regular classroom teacher, so the exceptional educational needs student remains in the regular classroom and receives direct and indirect supportive services.

The term mainstreaming has a much more detailed definition that needs further description because school districts interpret the word differently. In a major research report on mainstreaming, Jack W. Birch, Ph.D., a leading special educator, found this definition of mainstreaming to be acceptable by 75% of all public school districts in the U.S. It stated:

1) Mainstreaming refers to assigning handicapped pupils to regular classes and providing special education for them.

2) In mainstreaming, regular class teachers broaden and adapt instructional procedures and content so all children are incorporated into regular programs at levels manageable for each child and teacher.

\textsuperscript{4}Ibid., section PI 11.21-11.25.


\textsuperscript{6}Ibid., p. 354.
3) Mainstreaming may be done at any level, preschool through secondary school and beyond.

4) In mainstreaming, the handicapped pupil reports to the regular class teacher.

5) In conventionally organized schools or in open-space schools, the handicapped pupils being mainstreamed spend half or more of the day in regular classes.

6) In conventionally organized schools the special education teacher has a headquarters room to which pupils can come for periods of time from the mainstream rooms to which they are assigned.

7) Mainstream handicapped pupils leave the main group only for essential small group or individual instruction, educational assessment and to pick up or deliver assignments prepared by the special education teacher.

8) The regular class teachers and the special education teachers agree upon individual schedules and assignments as needed for children being mainstreamed.

9) Regular class teachers are responsible for grades and report cards for the mainstreamed handicapped pupils, but they may consult with special education teachers on the grading.

10) Special education teachers help regular class teachers also by providing educational assessments and instructional consultation for regular class pupils who may not be eligible for special education in the usual sense.

11) Mainstreaming implies the following principle: Handicapped pupils usually begin their education in regular kindergarten or first grade groups with special education support, and they are removed to special classes or special schools only when the necessity to do so is shown and only for the periods required to prepare the pupils for return to regular classes.

12) Criteria for selecting handicapped pupils for mainstreaming are in terms of matching pupils' educational needs and the capability of the mainstream program to meet
those needs, rather than in terms of the severity of the pupil's physical, mental, emotional or other handicap.

13) Mainstreaming has a place in the spectrum of plans for organizing instruction, space and facilities to accommodate the educational needs of handicapped pupils.7

It is also important to note what mainstreaming is not. Mainstreaming is not:

1) Wholesale return of all exceptional children in special classes to regular class.

2) Permitting children with special needs to remain in regular classrooms without the support services they need.

3) Ignoring the need of some children for a more specialized program than can be provided in the general educational setting.

4) Less costly than serving children in special self-contained classrooms.8

A more complex term to define and one that has brought about legislative questioning and wide interpretation is the least restrictive alternative. "The least restrictive alternative refers to integrating handicapped students with regular children to the maximum extent appropriate." Barbara Bateman in her survey of different state laws has found other definitions or interpretations for the term. She states that California's law


"promotes maximum interaction of the handicapped with the general school population in a manner which is appropriate to the needs of both."^{9}

In the State of Wisconsin we have an M-team, or multi-disciplinary team, which determines if the child has a mental, learning, emotional, or physical disability. The M-team is determined by the exceptional educational needs which a particular child is believed to have. The federal law states that the M-team must consist of at least two members who have expertise in assessment and programming for the exceptional educational needs of the child being evaluated. The M-team must include a regular educator who works with the child. In other states this team has been termed the Student Support Team and the Admission, Review and Dismissal Committee. These terms have been used in the context of this paper.

In summary, the purpose of this paper was to examine the different models of mainstreaming for the learning disabled student. In this review of the research the author has attempted to answer the following questions:

1) Why is mainstreaming advantageous?
2) What are some of the disadvantages?
3) What are the different models for mainstreaming and how effective have they been?

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^{9}Barbara Bateman and Norris Haring, Teaching the Learning Disabled Child, p. 64.
4) What are the roles of the principal, regular education teacher and learning disabilities teacher in mainstream programs?

5) How can the mainstream model be implemented successfully in a school system?

In conclusion, the purpose of this paper was to examine different models of mainstreaming for their effectiveness in working with the learning disabled student. Chapter II will review the literature that has concentrated on mainstream programs for learning disabled students since 1968. Chapter III will discuss the different models in relationship to models currently used in Wisconsin and list some suggested techniques for a consultant teacher working in a mainstream program.
CHAPTER II

REVIEW OF THE LITERATURE

The main advantages of the mainstream program throughout the research were that:

1) Children need not be labeled.

2) The child can be kept in the mainstream of the school, yet receive supportive services, so that peer interaction continues.

3) Children are able to benefit from large group instruction as well as individual and small group instruction.

4) Many more children can be serviced.

5) There is greater parental and community support.

6) There is a greater amount of time for specialist/classroom teacher consultation regarding the child, to develop a total educational program for him.

7) The specialist is also available to consult with the teacher regarding children with special needs who do not qualify for a special educational program.

Handicapped children have benefited from social contact with their normal peers and normal children have benefited from contact with handicapped children. Hugh S. McKenzie, Ph.D., Director of the Center for Special Education and Professor, Special Education Area, University of Vermont, summed up the social benefits of mainstreaming in these words:
The black child, the white child, the Mongoloid child, the child with cerebral palsy, the deaf child, the blind child, the child whose scores are at the mean for standardized tests, the child who reads five years above his grade level—all these children need contact with one another to share educational experiences and to broaden their understanding of the dimensions of humanity.\textsuperscript{10}

Mainstreaming has benefited the normal child as well as the handicapped child, academically as well as socially. In a study done by the Maryland State Department of Education, 1500 handicapped children who were mainstreamed in programs across the state, were given pre and post classroom reading inventory tests administered to pupils in kindergarten through 8th grade. The average grade equivalent advancement of the handicapped students was 1.14 years. Their achievement was equivalent to the gains made by non-handicapped students. The normal students had gained more than one year's growth.

In theory there are many advantages to mainstreaming, but in practice there are many pitfalls with its implementation. According to Lerner, mainstreaming has required careful educational planning and a clarification of responsibilities. Lerner has suggested that the concerns of both regular educators and special education teachers be considered. She also cautioned that a mainstreaming program is strongly influenced by teacher attitudes. To be successful, mainstream programs must have

strong administrative support and essential inservice education for all regular education instructors.

According to Richard Weatherley and Michael Lipsky, reporting in the Harvard Educational Review, "the Massachusetts experience with mainstreaming suggests that already busy teachers have little contact with specialists, infrequent knowledge of the content of the child's educational plan, and have little expertise in special education." They have agreed that "an essential beginning in special education reform is the careful preparation of teachers and specialists."\(^\text{11}\)

Another question about mainstreaming brought out by regular education teachers is how many handicapped students they should have in their class. The president of the National Educator's Association, John Ryor, has suggested that the number of mainstreamed handicapped children be limited to two per class. He also agrees that, "teachers must have the strong and coordinated backing of special education teachers and support personnel."\(^\text{12}\)

Mainstreaming can be seen as an end result of a continuum of programs and services from a more restrictive to less restrictive alternative (refer to figure 1). Many educators see this as a complete model for


\(^{12}\)Bateman and Haring, Teaching the Learning Disabled Child, p. 62.
A CONTINUUM OF PROGRAMS
AND SERVICES MODEL

Figure 1
providing special services to handicapped students, so that the total alternatives available fit the needs of the students. According to Paul Masem, Director of Supplementary and Special Education in Montgomery County, Maryland, "What's really being proposed is a whole restructuring of what we do in education - making the system become more flexible to meet the needs of kids right where they're at."  

In examining the different models for mainstreaming, the author approached each model with the following questions as suggested by Keith Beery in his book, *Models for Mainstreaming*:

1) Does the model recognize and provide for a continuum of programs for children who are experiencing difficulty?  
2) Does the model reduce "pull-out" programs? (Pull-out refers to pulling a student out of regular class for individual help by the specialist.)  
3) Does the model call for specialists to work in regular classrooms as much as possible?  
4) Does the model encourage regular classroom personnel to use special classrooms and equipment?  
5) Does the model concentrate on assisting classroom teachers to increase personalization and individualization for all children in the classroom?  
6) Does the model provide for an ongoing, meaningful staff development program which is oriented toward practicum and seminar work among staff?  
7) Does the model involve the principals in such a way that they are involved as an educational leader in the staff development and special education programs?

With these factors considered we have a base for examining the different models for mainstreaming.

The first model the author examined was the Training Based Model for special education. The Training Based Model has purported to be a "zero-reject" model, which means that once a student has been in a regular education program within a school "it must be administratively impossible to separate him from that program for any reason." The objective of the zero-reject model was to place the responsibility for failure on the teacher rather than on the child. Instead of labeling the child making the failure his problem the zero-reject demanded that the problem be solved directly by the teacher. Another criteria for the Training Based Model was that the special educators must provide training for the regular education teachers. The main goal of the Training Based Model was to "make teachers self sufficient, able to handle problems rather than refer them." With the Training Based Model the regular teacher refers a child and then an instructional specialist trains the regular classroom teacher to handle the referral problem. The role of the instructional specialist as described by Stephen Lilly, Assistant Professor, Department of Special Education, is that, "the instructional specialist would work with the

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teacher in such areas as diagnosis of problems in academic skill areas, specification of both individual and small group study programs, behavior management procedures and group and individual reinforcement patterns."¹⁵ The child was never removed from the regular classroom. This model did not require regular education teachers to take part in in-service programs, the model was organized so the teachers referred problems as they happened. This model only helped those teachers who asked for help. The administrative considerations for implementing this model were numerous. First, existing special education programs had to be discontinued, the state and federal funds for special education programs had to be changed to foot the bill for the new program, and parents, board members, teachers and legislators had to be convinced of the program's effectiveness. This model also had implications for university-based teacher education programs. University-based special education training programs would have to train instructional specialists and include special education experience as part of their undergraduate program for secondary and elementary teachers.

Problems with implementation of this model might come on the legislative level. In order to find such a model, legislatures have to stop thinking in terms of categories and labels.

A similar model has been quite successful in Vermont public schools. The Consultant Teacher Program has been in effect in Vermont

1970. As described by Susan E. Hasazi, a consultant teacher in the Vermont Chittenden South Supervisory District, the Consultant Teacher Program had made the following assumptions:

1) To evaluate teacher effectiveness, there must be behavioral change in the learner as a function of the programs the teacher implements.

2) All children can learn, regardless of handicaps.

3) All teachers can learn, too, and by implication teachers can learn to effect behavioral change for their learners.

4) The most promising methods that seem to help teachers effectively change the educational and social progress of children are derived from the experimental analysis of behavior.\(^1\)

The consulting teacher has utilized workshops, which participating teachers could apply toward recertification, and the school encourages regular education teachers to do graduate course work in special education. Upon referral of a student the consulting teacher and the regular education teacher meet to define the problem the student is having in observable or measurable terms. The consultant teacher establishes an instructional objective for the defined target area and develops an intervention strategy to be implemented by the teacher. The teacher and consultant teacher meet again to assess the effectiveness of the intervention. Modifications were made if necessary. In the Vermont Consulting Teacher Program the total faculty determined a set of criterion-

reference objectives for all children grades K-8. Using this set of criterion reference objectives the classroom teacher determined what students should have been referred.

Hasazi has described one case where a student entered the 6th grade with a 2.5 reading level and with intervention increased to a 5.5 level in six months working with regular teachers in the mainstream. This model has been used with gifted students as well. She has felt the overall success of the program was in the re-evaluation process which is continual for all students.

In examining the Consultant Teacher Program it is important to consider the role of higher education, because the University of Vermont worked along with the Department of Public Instruction and public school districts to achieve mainstreaming. The University of Vermont's responsibility was to train consulting teachers who in turn would train regular education teachers, administrators, and other educational personnel. Their model does not label the various types of learners. The consultant teachers are trained in a data based individualized model of education that was described above.

The Consultant Teacher Training Program curriculum included these important features:

1) Principles of behavior modification.

2) Application of these principles to meet the needs of handicapped children in regular classrooms.

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3) Precise daily measurement and monitoring of a child's progress to ensure that contingencies, methods and materials are effective.

4) Procedures for training parents and teachers in the principles and application of behavior modification techniques.

5) Research training to increase skills in devising and evaluating education tactics.

6) Development of supplementary materials suited to the particular needs of handicapped learners.

7) Methods of advising elementary school teachers in the management and education of handicapped learners.  

The model specified that a set of objectives be established so that referrals could be determined. The University model cautioned that the state department had to be flexible in allocation of funds for special education facilities to help mainstreaming efforts.

Another model which was originally conceived by a university is the Diagnostic Prescriptive Teacher Model developed by Dr. Robert Prouty of George Washington University. This Diagnostic Prescriptive Teacher Model was based on two basic assumptions:

1) The child is not defective, but the educational system in which he finds himself is.

2) Teachers would be more willing to deal with children with behavioral and learning problems if

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they had practical information on how to attack the problem.\(^\text{18}\)

The diagnostic prescriptive teacher was a change-agent in the school who helped teachers adjust their methods to meet all children's individual needs. The diagnostic prescriptive teacher specialized in educational diagnosis and programming for those children with special problems. Unlike the Training Based Model, the Diagnostic Prescriptive Teacher Model recognized that some children have severe educational and behavioral problems that can best be dealt with in a special education self-contained program, but the majority of special education students, Prouty believed, can be serviced by such a model.

Criteria for implementing the Diagnostic Prescriptive Teacher Model are threefold. First, the diagnostic prescriptive teacher maintains a regular-size classroom, with a large supply of educational materials. Secondly, the diagnostic prescriptive teacher is equal to any regular education teacher with the same responsibilities and duties. And lastly, the diagnostic prescriptive teacher is the only diagnostic resource of school-referred problems. There are ten basic steps in the Diagnostic Prescriptive Teacher Model as Prouty describes them:

1) The classroom teacher first refers a child as an academic or behavior problem. This is done simply and in writing to the diagnostic prescriptive teacher. The referral must pinpoint an academic or behavioral problem. If it does not, it is returned by the diagnostic

\(^{18}\)Keith E. Beery, Ph.D., Models for Mainstreaming, p. 89.
prescriptive teacher to the classroom teacher and not accepted until the referral problem is pinpointed.

2) The diagnostic prescriptive teacher observes the classroom setting to determine what the classroom teacher's teaching style is, what the classroom interaction is, how the child is behaving, and what his problems seem to be.

3) The diagnostic prescriptive teacher and referring teacher confer about the child so that the diagnostic prescriptive teacher may gain more information.

4) At his or her discretion, the diagnostic prescriptive teacher arranges for the child to come temporarily to the diagnostic classroom on an appointment basis.

5) Experimental teaching is undertaken to arrive at the educational prescription. The diagnostic prescriptive teacher may call in specialists from other disciplines, in which case they submit their reports to the diagnostic prescriptive teacher. But they are involved in the case only by invitation of the diagnostic prescriptive teacher. It must be emphasized that the diagnostic prescriptive teacher is neither teaching the child nor doing any remedial tutoring; she is determining what teaching styles and what materials "turn the kid on."

6) The diagnostic prescriptive teacher determines the child's class placement on the basis of his particular educational needs. The referring teacher may or may not receive the child back. The teacher who will receive the child is invited to the diagnostic classroom to observe the technique, the materials used, and to confer with the diagnostic prescriptive teacher about the educational prescription.

7) The child is assigned to the new or old classroom. The diagnostic prescriptive teacher observes the child in the placement, confers with the receiving teacher, offers guidance, and, if requested, demonstrates the prescription with the entire class. Whole-class demonstration provides built-in accountability. If the diagnostic prescriptive teacher cannot successfully
demonstrate the prescription she has prepared with the entire class, the solution is unacceptable to the model.

8) Only when both the diagnostic prescriptive teacher and the classroom teacher are satisfied with the placement and the prescription is the case closed.

9) The diagnostic prescriptive teacher follows up on the child periodically to assess the situation.

10) At the beginning of the next school year, conferences are held with the new receiving teachers to facilitate continuity and implementation of the new educational program. ¹⁹

This model was reported as successful in the Washington D.C. area as well as in Charleston, South Carolina, and Fairfax, Virginia. Other higher education institutions have adopted the Diagnostic Prescriptive Teacher Program as their special education teacher training program. This model used the diagnostic prescriptive teacher as the sole diagnostician, so the role of the school psychologist changes. The psychologist was free to counsel and set up therapy groups. The Diagnostic Prescriptive Teacher Model recognized that not all students can be helped in the mainstream, but did reduce "pull-out" programs for the mildly handicapped student. This model would be effective for the learning disabled student whose unique learning style would be diagnosed and used in effective teaching methods. This model does allow the diagnostic prescriptive teacher, or specialist in this case, optimum time to work in regular class with students and with teachers in consultation and actual demonstrations,

¹⁹ Ibid, pp. 91-92.
showing the teachers how to individualize with a large group. Perhaps one of the most common complaints regular teachers had against specialists is that specialists work with small groups so individualization was feasible. With the Diagnostic Prescriptive Teacher Model, the specialist demonstrated individualization with a large group of students as opposed to the small group. One disadvantage to the Diagnostic Prescriptive Teacher Model was that regular teachers referred the problem child, therefore teachers had to be oriented in how to use the diagnostic prescriptive teacher and how to identify the children who would benefit or need the program. The diagnostic prescriptive teacher needed strong administrative support so the regular teachers would refer children who needed help.

In Minneapolis, a resource program was reported to service handicapped students in the mainstream. The resource teacher was called a diagnostic prescriptive teacher, but the role was slightly different from Prouty's Diagnostic Prescriptive Teacher Model. The objectives of the Minneapolis Resource Program were described by Dorothy B. Harrison, lead teacher of the Minneapolis Public Schools:

1) To provide effective individualized programs to support mildly handicapped students so they can function with their classmates in regular classes.

2) To provide consultation services to regular classroom teachers to help them accommodate children who have learning and/or adjustment problems.

3) To advocate for handicapped children assuring that they receive the amount and type of services
required for them to progress to the limit of their ability.20

The role of the diagnostic prescriptive teacher in this resource model was to provide in-depth diagnostic testing, to prescribe materials and techniques, to supply materials, and to suggest modifications in classroom management. The specialist was also free to provide regular teachers with assistance for students who were having problems in the classroom, but were not receiving special education services. In the Minneapolis Resource Program 65% of all handicapped children participated in the program and saw the resource teacher for at least one hour a day individually or in small groups of not more than three students at a time. The diagnostic prescriptive teacher monitored all handicapped students' progress and made necessary adjustments in the intervention strategy.

This Resource Model was designed solely for the learning disabled or emotionally disturbed handicapped students. It did not include mentally retarded students. In the development of this model the Minneapolis resource teachers along with regular teachers developed a student performance inventory to test specific objectives in these areas:

1) Language development.
2) Perception, auditory and visual.

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3) Achievement.
4) Behavior.
5) Interpersonal relationships.
6) Physical development including perceptual motor skills.

Upon referral of a student the regular education teacher completed the inventory and the diagnostic prescriptive teacher used the inventory to determine what areas needed formal testing and who should be assigned to the case. This involved the regular education instructor and worked as an inservice tool showing the teacher how to identify strengths and weaknesses by comparing objectives.

Unlike the Diagnostic Prescriptive Teacher Model, the Minneapolis Resource Model used a multidisciplinary team called the Student Support Team which was composed of a core group including the principal, social worker, diagnostic prescriptive teacher, classroom teacher, and any other support staff that was assigned by the diagnostic prescriptive teacher. The total evaluation was the responsibility of the whole team. The team devised an individual plan for the child which assigned responsibility and placement. This plan was re-evaluated every three months. The role of the diagnostic prescriptive teacher was therefore flexible between direct services to students, to fulltime consulting of classroom teachers.

This model provided a continuum of services for handicapped students and reduced "pull-out" programs where appropriate. The
specialist worked on a consultation basis with regular teachers so the diagnostic prescriptive teacher did not work directly in the regular education classroom. The regular education teachers were members of the support team, so they were encouraged to follow through on recommendations given.

In the four models reviewed thus far, the role of the specialist has been one of a diagnostician, who assessed a child's learning aptitudes, and prescribed treatment for the student in the regular classroom. The specialist worked on a consulting basis along with the regular classroom teacher and in Prouty's Diagnostic Prescriptive Teacher Model actually demonstrated individualized teaching methods. In the Training Based Model, the Vermont Consultant Teacher Model, and the Minnesota Resource Model, the regular education teacher was part of the diagnostic team; whereas, with Prouty's Diagnostic Prescriptive Teacher Model, the sole diagnostician was the diagnostic prescriptive teacher who utilized teacher input and classroom observation. The regular education teacher's role in the mainstream models was to identify students with special needs and alter his/her behavior or teaching techniques to teach the handicapped child. With the mainstream program, the regular education teacher implemented the teaching recommendations of the multidisciplinary team, the diagnostic prescriptive teacher, or consulting teacher. The regular teacher educated the normal children about handicaps so they would accept handicapped students. The role of the principal was not clearly outlined.
in the four models researched. It is the belief of the author that the principal is the key figure in the mainstream program.

A study by Pamela V. Cochrane and David L. Westling found that the principal was a key figure in presenting and supporting the mainstream program. The authors believed that the principals should be aware of the characteristics of mildly handicapped children and recognize their educational needs. They felt that the principal should know what the regular education teachers had to provide to adequately teach the handicapped student. The principal could be a key inservice person who would discuss specific characteristics with teachers. The principal should seek to hire regular education teachers with some background in special education and make it clear to the prospective teachers that they must be committed to the mainstream program.

Cochrane and Westling suggested that the principal facilitate staff education and special training by making available appropriate literature along with planning adequate inservice programs. Special educators could be used as consultants as well as team teachers to help regular teachers with all problem students, not just those identified as exceptional. The authors suggested that "the principal should always remember that mainstreaming is a cooperative effort and that the skills provided by the school staff members should be utilized and shared."

They also reported the principal should allocate special funds beyond normal budget appropriations to allow the regular educator to acquire special materials for their classrooms. The principal could also be instrumental in changing attitudes among normal students and regular education teachers; he could use community interest groups to his advantage in changing the attitudes. The role Cochrane and Westling described for the principal was an active key role in the implementation of mainstream programs. By examining actual school programs, these roles became clearer.

In Tacoma, Washington, the public schools approached mainstreaming in 1961. Their project, "Progressive Inclusion," was a total commitment to mainstreaming by the initiation of school board policy and the administrative commitment to the attitude and implementation of mainstreaming. The project was a concept, change in attitude, and a process to gradually mainstream all handicapped children, not just the mildly handicapped, the learning disabled, or emotionally disabled student, but the educable mentally retarded, physically handicapped, deaf and blind. An underlying assumption to their project was that mainstreaming needed "an early beginning when children are relatively free from many learned negative feelings regarding self and others." So their

mainstream program included all students in grades K-12. In 1961, the Tacoma Public Schools began to remodel and build new schools to accommodate exceptional education students, thereby removing architectural barriers. The district also changed their recruitment practices so that prospective teachers would have to commit themselves to the implementation of mainstreaming. The program has been in effect for seventeen years and during this time there was constant administrative support to make sure that all staff understood and adopted the policy. The project was designed for gradual attitudinal change.

Seventeen years later, the Tacoma, Washington, Progressive Inclusion Program was reported as successful and accepted by both regular education teachers and the community. There was a gradual slowdown of referrals and a reluctance to label students. Regular education teachers participated in multidisciplinary team meetings and evaluations. Class size was lower in classes with handicapped children and the University of Washington worked on a cooperative basis with the school district having many student internships in the Tacoma Schools.

In Richardson Independent School District in Texas, the answer to special education was a continuum of services program (figure 1). With the change to mainstreaming, the Texas school district followed these steps in implementing their program:

1) Early involvement of non-special education personnel.
2) Total responsibility by the local school for every child in its area.

3) Decentralization of the local school to provide it with the necessary tools.

4) Use of the team approach in the local school.

5) Individualization - working with the child rather than with a label or program.

6) Recognition of the specific purpose for mainstreaming. 2

The multidisciplinary team was a committee called the A.R.D., Admissions, Review and Dismissal, which included the principal, special education personnel, diagnosticians (working on an itinerant basis), regular education teachers and parents. Upon referral, the Admissions, Review and Dismissal Committee established an evaluative team and later assigned appropriate placement for the child. The Admissions, Review and Dismissal Committee also established time for systematic review.

After the establishment of the Admissions, Review and Dismissal Committee, the biggest change took place with regular education teachers. Including them for staffing helped individualize programs for all children. Through this the principal was able to change instructional approaches within his school. Richard F. Hays, Assistant Superintendent for Elementary Instruction for the Richardson Independent School District, said, "We are looking at the child first and determining his needs, rather

than looking at the curriculum first and determining its needs. The role of the regular education teacher and of the principal was clearly defined here as a more active one in diagnosis and prescription.

In the Santa Monica Unified School District in California, compulsory reassignment of educationally handicapped children to the regular classroom was their way of implementing mainstreaming. During 1967-68, seventy special education children participated in this reassignment project. The handicapped students were all reassigned to regular classes when school opened in September, 1967. The advantages to the reassignment policy were that:

1) Regular education teachers saw it as an impartial decision instead of being singled out to have an exceptional educational needs student placed with their class.

2) Special education classes were not replaced, students could be referred in the Fall.

3) Regular education teachers made the decision of how much special education help each child needed so they determined the amount of reintegration the child could handle.

4) Children who were ready for reintegration could start at the beginning of the year.

5) Reassignment allowed the regular education teachers time to reassess each student.

6) It forced the regular education teachers to work closely with special education teachers.

24 Ibid., p. 49.
Regular education teachers could get help for all the children in their class, not just the exceptional education needs students. The project was reported as successful and by 1968-69, 50% of the educationally handicapped population were functioning in the regular classrooms. There was also meaningful improvement in the communication between the regular education teachers and special education teachers.

Robert H. Bradfield, Assistant Professor of Special Education at San Francisco State College, involved his services in a class at an elementary school in North Sacramento. They established an experimental class which had three educable mentally retarded and three learning disabled students assigned in a class of thirty. Bradfield worked as a consultant to the teacher. They established a control class composed of only normal students. Achievement was tested periodically to see if integrating educationally handicapped students with normals affected the normal students' achievement. They found that the normal children in the experimental classroom achieved at the same rate as children in the control class. Bradfield trained the teachers to use precision teaching techniques and precisely define and structure the curriculum and consequences for appropriate performance. The regular teachers learned to make each child his own learning center and individualized the instructional program within the regular class. Inservice training showed the

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25Keith E. Beery, Ph.D., Models for Mainstreaming, p. 41. -30-
teaching staff how to develop teacher-made instructional materials.

Bradfield believed in behavior modification so this was part of the in-service training. He outlined six points to the precision teaching process:

1) Pinpointing a behavior by selecting and operationally defining the behavior of concern.

2) Recording the frequency of the pinpointed behavior and the number of minutes during which the observation occurred.

3) Computing the rate of the behavior, based on frequency of behavior per minute.

4) Charting the behavior rates on a six cycle logarithmic chart.

5) Intervening to accelerate or decelerate the behavior.

6) Repeating and modifying the intervention if the charts indicated less than desirable changes.26

Achievement test scores that were reported showed that educationally handicapped gained the same amount as normal children and more than when they were placed in a self-contained special class. The handicapped children were given a pre and post Semantic Differential Survey to measure change in five concepts: school, family, teacher, me, and principal. The learning disabled children in the experimental class showed a positive attitude change for all five concepts. The educable mentally retarded showed no significant changes on the five concepts.

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Bradfield continued the project with ten more regular education teachers the following year with great success for children’s achievement and teachers’ skills in handling special education children in regular classrooms. Besides precision teaching, Bradfield also used peer teaching, cross-age teaching and teacher aides.

In conclusion, to implement mainstream programs it is imperative to involve the regular education teacher in training or inservice programs prior to and during implementation. Individualization in the regular classroom is the key to mainstreaming children effectively. The principal plays a key role in changing instructional approaches in the regular classroom and in changing regular education teachers’ attitudes. The role of the specialist must be consultative and in varying degrees diagnostic. It is the job of the specialist to show the regular education teacher how to teach the handicapped student in the regular classroom; how to individualize the student’s program. It is helpful to include the regular education teacher in multidisciplinary team meetings and especially planning of the intervention strategy that will be used for the child. A commitment to mainstreaming must come from the total educational facility - the school board, community, administrators, regular teachers, special education instructors, higher education facilities, and students. Mainstreaming benefits all students - normal and handicapped.

Chapter III will discuss the different models in relationship to models currently used in Wisconsin and list some suggested techniques
for a regular classroom teacher who wants to individualize in the regular classroom for a learning disabled student.
CHAPTER III

CONCLUSION

In summary, some of the advantages of mainstreaming are that:

1) The child need not be labeled.

2) Exceptional educational needs students can benefit from the social interaction with their peers, as well as receive supportive services.

3) More children can be serviced, those with exceptional educational needs as well as slower students and normal children.

4) Special education teachers can work with regular education teachers.

5) The child is not identified as a problem; teaching methods and techniques are altered to meet the child's unique learning style.

6) There is more parental support.

7) The child is no longer "pulled-out" of his regular classrooms.

There are several programs which define the new role of the specialist. In Vermont the consultant teacher, who was trained by the University of Vermont, utilized teacher workshops and inservice training to aid regular education teachers. The consultant teacher worked with the regular education teacher to define a student's problems and plan an intervention strategy, which was modified or continued on a review basis.
Criterion reference objectives were determined by the staff to define what students needed help. A similar position was described in the Training Based Model where the instructional specialist trained the regular education teacher to handle the child's unique learning needs.

The Diagnostic Prescriptive Teacher Model used in Washington D.C. altered the role of the specialist, who became the sole diagnostician for the local school replacing the multidisciplinary team procedure almost entirely. The diagnostic prescriptive teacher upon referral of a student, worked individually with the student to determine the student's particular learning style. The diagnostic prescriptive teacher determined appropriate placement for the child.

If the child was to return to the regular classroom, the diagnostic prescriptive teacher instructed the regular education instructor how to individualize for the student. If necessary the diagnostic prescriptive teacher demonstrated with the whole classroom of students. The diagnostic prescriptive teacher closely monitored each case so that modification or further intervention could have been made to help the student.

The diagnostic prescriptive teacher worked with all problems, behavior as well as academic. Like the consultant teacher, the diagnostic prescriptive teacher training was conducted by George Washington University.

Like the Diagnostic Prescriptive Teacher Model, the Minnesota Resource Program called the specialist the diagnostic prescriptive teacher, whose job was to provide in-depth diagnostic testing, to prescribe
materials and techniques, to supply materials, and to suggest modifications in classroom management. This diagnostic teacher worked indirectly or directly with the students, however, so this was a key difference in the role.

The role of the regular education teacher has changed in the mainstream models. She is responsible for the education of the handicapped child and must seek help to meet the child's exceptional educational needs. The teacher must teach and help normal students to accept their handicapped peers. The regular education teacher must implement the intervention strategy of the multidisciplinary team.

The role of the principal is an active one. He is a key figure in changing instructional approaches. He must see that all teachers are involved in the mainstream process from the beginning of its implementation. The principal must plan appropriate training and inservice programs for the regular education teachers.

In Tacoma, Washington, the implementation of mainstream programs was a commitment by the Community School Board, administrators, special and regular education teachers, parents and higher education. Their program, in effect for seventeen years, has successfully mainstreamed all exceptional educational needs students. The success of their "Program Inclusion" lies in the commitment of the total educational community.

In Richardson Independent School District, mainstream was successful based on a continuum of services program. Regular teachers were
part of the multidisciplinary team procedure conducted by the Admissions, Review and Dismissal Committee, so the teacher could be part of the diagnostic prescriptive process. The principal was also part of the Admissions, Review and Dismissal Committee, so they could be effective in changing instructional approaches.

The compulsory reassignment of educationally handicapped children in the Santa Monica Unified School District saw the regular education teachers in an active role of reassessment of all educationally handicapped children each year. The regular education teacher determined the amount of integration in the regular classroom that is appropriate for the educationally handicapped student.

The North Sacramento Project utilized the help of higher education as a consultant to regular education teachers. Bradfield, the consultant, established workshops to train teachers how to individualize for the exceptional educational needs child in regular classrooms. He specifically set up a model for precision teaching. Peer-age teaching, team teaching and cross-age teaching was used as well as instructional aides.

It is important to realize that whatever model is employed in order to mainstream all students effectively, the school has to work as a team, cooperatively, all in support of the mainstream policy. Changing the attitudes of regular education teachers, administrators and normal children is an imperative step in the process of implementing a mainstream program.

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In the Milwaukee area, the "consultant" teacher role is not yet in existence. In most areas of Wisconsin, learning disability teachers on the secondary level are asked to run resource programs where students get help in specific disability areas in self-contained learning disabilities classes. The specialist's time in a resource program concentrates more on remediation work while the consultant in the mainstream model would put more emphasis on diagnosis and prescription. Colleges have the obligation to train teachers for positions available; so as yet, no higher educational institutions in this area have begun training special educators to be consultants. A movement toward total mainstreaming would have to come from the Department of Public Instruction and the school districts, with the cooperation of the teacher training institutions. A change in legislation is also necessary with the implementation of mainstreaming, so that consultant teacher programs could be funded. Such changes have not yet started in Wisconsin.

Individualization seems to be a key idea in mainstreaming students, so learning disabilities teachers in a resource program could give suggestions to regular teachers on methods of individualization. The following are three lists which include some suggestions for the regular education instructor to use for individualizing in the regular classroom.

The first list is a group of suggestions from Jenny Klein, Director of Educational Services in the Head Start Bureau:
MAINSTREAMING HANDICAPPED CHILDREN:
TIPS FOR TEACHERS

1) Get to know the individual child's problems, reactions, strengths and weaknesses. If you see him or her as a child first - rather than as a stutterer or an epileptic - you will realize that most behavior is not related to the disability. If a child is acting especially shy or having tantrums, it may not be related to cerebral palsy or deafness, but may be a normal developmental stage.

2) Get to know all you can about the specific disability. Chances are your group will have only one or two handicapped children. Find out the ways that a cleft palate or a visual problem can affect a child. It is important that you get all the information possible and then trust your own judgment and your knowledge of children.

3) Listen to parents; they're experts about their child. Talk to them at a prearranged time - not in front of the child. Encourage the parents to come to the classroom to observe and to offer suggestions based on their experiences. Make it a two-way exchange: you will learn from them.

4) Introduce the special child to the class gradually. Ask the parents to bring the child in some day after school. Let the child explore the classroom and begin to feel comfortable with it. In phasing a special child into the class, take your cues from the other children: note when they feel comfortable, scared, belligerent, or enthusiastic.

5) Capitalize on the special child's strong points. Set up situations where the child can do well in the group. A mentally retarded boy might have some playground skills the others appreciate; a deaf girl may do well in the dress-up corner or in building with blocks.

6) Break down tasks into small components. Don't give too many directions at once or encourage the child to try a complex project. But don't be overprotective. They have to learn to cope.
7) Know what comes within the range of normal behavior for the age group you work with. Know the problems of normal children in the age group and their typical reactions.

8) Know your own level of frustration, how much you can take. Don't consider yourself a failure if you need to ask for help or send a child home occasionally. Some handicapped children have more difficulty than others in groups. Remember that in any classroom situation there are days when things don't go as smoothly as you'd like - when you wonder if you really picked the right profession. 27

The second list appeared in Today's Education, a magazine published by the National Educator's Association:

WAYS TO TEACH LD STUDENTS

The following suggestions are appropriate for students with auditory or visual problems:

Seat such students in the front of the room.

Have each of them work with a student buddy who can help them with directions and information they don't understand. Give written as well as oral directions for all assignments. You can give written directions on the chalkboard or on a calendar or in a course outline.

The following suggestions are appropriate for students with auditory problems:

Use visuals - maps, slides, charts, pictures - with lectures.

Summarize key points in each lesson in introducing and again in concluding the lesson.

Give students a written outline for each unit of study.

Help students with material they need to memorize by suggesting mnemonic devices.

Use tapes for individual instruction and make tapes of your lectures that students can listen to.

The following suggestions are appropriate for students with visual and visual-motor problems:

Use reading materials at appropriate grade levels.

Allow such students to tape lectures, discussions, and directions rather than take notes.

Give short written assignments.

Give oral tests whenever appropriate.

On written tests, provide a variety of test items: matching, multiple choice, short answer, true/false.

Provide a variety of assignments: models, demonstrations, diagrams, tapes, slides, oral presentations.

Give students copies of other students' classnotes.

Give students brief written outlines of reading assignments.

WAYS TO EVALUATE LD STUDENTS

Students can demonstrate what they've learned from a unit of study in many ways other than taking a typical test. They might -

Make a transparency to illustrate an idea from the unit.

Prepare a glossary of special words and their definitions from the unit.
Prepare a chart or map showing information from the unit.

Adapt the information in the unit for a simple play or skit.

Make a collage or a picture sequence related to the various ideas studied in the unit.

Construct a bulletin board display.

Write or tape a news commentary on a subject related to the unit.

Interview someone who is knowledgeable about the topic under study and record the interview for presentation to the group.

Keep a journal of new information learned in the unit each day.

Prepare a research paper.

Prepare a slide, filmstrip, or videotape presentation for the group.28

A summary of techniques for regular classroom teachers suggested by C. Wilson Anderson, a secondary English teacher from Bloomington, Minnesota, in the keynote address at the Wisconsin Special Education Twelfth Annual Conference in Oshkosh, Wisconsin, is reported below:

Hints for regular education teachers:

1) Spelling words misspelled in written work should be used for spelling tests. You might have to list them in priority order.

2) Teachers shouldn't lecture - or at least outline on the board as they go - so students can organize.

3) Test can be read!! Taping done for answers - other testing only measures student's ability to handle the subtleties of the language, his ability to read and comprehend.

4) Subdivide class into categories - divide the curriculum and assign specific topics to each group.

5) Alter assignments - utilize companion texts, choose articles that parallel reading assignments.

6) Grade in two ways - objective: how much work; subjective: quality of work with respect to abilities.

7) D's and F's do nothing but damage to a child.

8) Just because it has been said in class, it has not been taught.

9) Vocabulary words - use several forms of the word so students learn to associate meaning.

10) Look up words in the dictionary with students.

11) Be sensitive to needs.

12) When using worksheets, move around the room, "Don't be the Sage on the Stage". Free yourself to do the teaching. Don't sit at the desk.

13) Encourage and demand that students take notes, and use key words to denote important things. Ex: "Put this in your notes" - "the most important thing to remember is . . . ."

14) Don't misuse teacher aides. Let them work with the more capable students while the teacher works with the LD student.

15) Use comments and questions, not grades. Use grades on revised assignments.
16) Discover student's best activity to build interest and rapport.

17) Use honest praise. You can't fool kids.

18) Outlaw reading out loud or else give LD student passage they are going to read the day before.

19) "Utilize the psychologist if you ever get to see him."

20) Regular education teachers must be part of the multidisciplinary team.29

In conclusion, it has been with the implementation of 94-142 that mainstreaming will become a reality in all schools. Handicapped children no longer need to carry a label in order to receive individual help. The commitment to mainstreaming has to be from the total educational community. Regular education teachers need inservice and consultative assistance and should be included in the multidisciplinary team procedure. Teacher training colleges have to prepare regular educators for mainstreaming by teaching them ways to individualize curriculum and special educators have to be taught consultation skills for working with regular education teachers. Special educators have to prepare their students for reintegration now and have to begin working with regular educators.

It is important to keep in mind that mainstreaming benefits the normal child as well as the handicapped child. "The concept of providing adequate educational opportunities for all children means that you deal

29 Notes were taken by the author of this paper at the Convention.
with the education of each child wherever that child is and however handicapped.\textsuperscript{30}

In summary, teaching all children as individuals has to be a high priority. Mainstream programs are the best way to work with most learning disabled students and the key to mainstreaming is individualization.

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