A Clinical Model for Treatment of Dyslexia

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Children with moderate learning disabilities often fail to qualify for special education programs in public schools, but are ill-suited for placement in private schools concerned with the severely disabled. Parents of such children may place their hopes in the promises of private teachers or clinics. Yet the quality of services provided in the private sector varies widely. This paper describes a model program against which parents and private service providers can measure the strengths and weaknesses of the programs they are concerned with. The model places special emphasis on thorough evaluation, frequent reevaluation, staff accountability, program flexibility, and recognition of the parents' role in the child's education.

It is not known how many learning-disabled children receive remedial instruction in the private sector. The quality of services provided is uncertain, and the goals of facilities and tutors are not always clear. The authors find a dearth of information describing the structures and parameters of services offered by private practitioners. There is seldom emphasis on the significant role parents play in the child's treatment; and, indeed, parents who seek help for their chil-

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dren are vulnerable and often confused, a fact rarely taken into account in planning programs.

Without commonly accepted standards for the diagnosis and treatment of learning-disabled children in the private sector, parents and practitioners have to devise appropriate strategies. Often the selection of suitable programs is left to chance or is based upon inadequate criteria. Such happenstance approaches contribute little to chances for positive change in the child's performance. Unfortunately little or no research is available to help with program selection.

Organizations, such as the Orton Dyslexia Society, provide some guides to assist parents in choosing appropriate services for their children. Practitioners use models which they have found useful or invent new ones that may or may not be suited to each child. Such models may fail to consider the needs of the parents; they may not delineate the child's needs clearly; they do not always demand accountability from service providers or provide for regular reassessment of the child's progress. Consequently, a child may continue in educational therapy for some time without noticeable improvement in performance.

Teachers may become complacent with methods that do not always produce positive results. Some children languish in programs of little value to them, while parents remain ignorant of the state of affairs. The practitioner is seldom challenged; parents, unfamiliar with the world of learning disabilities, are likely to accept the professional on faith. Since anxiety probably motivated the search for help to begin with, it is not surprising that parents place considerable trust in those who offer promise of growth for their children.

The child, who may, as a result of unsuccessful or unhappy experiences in school, consider himself/herself a failure, has little choice but to accept the treatment. There is always the hope that this time the experience may be a positive one. The practitioner, using methods rarely evaluated, often considers the treatment prescribed infallible, for it consists of techniques that have been successful in the past. The combination of anxious poorly-informed parents and uncritical overly-confident professionals can result in a course of action that is detrimental to the child. Such an approach to the uniqueness of each child is appalling, and the educational/medical establishment must be called to task for permitting anything less than treatment programs designed to meet the needs of the individual at his/her present stage of academic, social, and emotional development.

To achieve this end, major efforts (and funds) must be turned toward researching instructional methods, training personnel, and developing clearly-defined organizational systems. Lacking these, the education of the learning-disabled in the private sector will continue to be characterized by expedience on the part of the professionals and faith on the part of parents. Those private centers which have been established in recent years vary greatly in quality and levels of service. Some have achieved gratifying results in spite of the pitfalls described above, while others appear spurious in their claims and questionable in their methods. The first priority of those providing services in such centers is to produce, as quickly as possible in as caring and sensitive manner as possible, observable improvement in the learner. Since language skills are often the key to success, the program should focus on strengthening those skills. To achieve growth, the learners's needs and the materials being taught must be carefully reviewed. Programs that insist on fitting the child to the program rather than studying each to make the best match are, at best, ineffective and, at worst, counterproductive. Thus, instructors should not only be well-trained in their disciplines, but they should be sensitive people who have insights into the natures, needs, and aspirations of the parents and children who depend upon them. Involving the parents in the program, even to the extent of having them assisting in their children's instruction, can be a key to a successful program. The model we will discuss, a center which has been operating for four years, is based on the principles described above.

The principles and practices of the model are both workable and ethical, and the experiences of this center, while not unique, may assist other providers of service to the learning-disabled in the private sector in their efforts to develop effective programs. The design of this center is particularly suitable for those children who, while floundering in the mainstream, are not so disabled that they require a segregated environment. The model emphasizes openness in its relations with families and bases its procedures on its commitment to children and parents.

The model consists of a step-by-step instructional plan, keyed to the child's modality strengths; it encourages active parent participation; it provides for frequent assessment of student progress, followed by program modifications when indicated; it holds instructors accountable for performance; and it presents an overall program that is clear and realistic. Each of these elements contributes to sound

educational practice, and when they are combined, the chances of success are enhanced. Providing prompt, effective, and caring attention to each child constitutes the essence of the model.

Parents who seek remediation for their children outside the public schools may explore a number of options. Clinics and centers like the model can offer under one roof a comprehensive program of diagnosis and treatment. Since diagnosticians are available for consultation with instructors and parents, teaching does not occur in isolation. Parents may gain a deeper understanding of the problem when they work with one person who coordinates the child's program than is likely when they have to deal with several professionals, each of whom has primary concern for one aspect of the evaluation or treatment. Limiting parent anxiety should be a concern of such programs, and centralizing staff-parent contacts can help to accomplish this.

The model center consists of the following elements:

1. *Evaluation.*

a. A parent intake interview is critical to understanding the child's problems. Developmental histories, including learning modalities, school and health records, and family dynamics contribute to effective diagnosis and treatment. Poor communication in the past between home and school or within the family may have added to the child's learning problems so fostering positive parent-staff, parent-child, and child-staff relations during and following the evaluation is a top priority in this model.

While many children may progress in the absence of teacher knowledge of their personal conditions, staff and parent recognition of the nonacademic influences on learning can help to dissipate anxiety and foster improved self-concepts. The latter may be the deciding factor in the child's motivation to participate in and benefit from treatment. A thoughtful intake sets the stage for the rest of the evaluation.

b. Following the intake interview, the child undergoes a comprehensive battery of educational and psychological tests. This is done without delay in order to limit the time of uncertainty for parents and child. The testing program is designed to give a picture of the child's learning patterns as well as his/her learning problems. Test results play an important role in determining the treatment plan which will be based on the child's strengths. Often teachers and clinicians rely almost entirely on prior experience in deciding on the plan for remediation. Although these professionals bring a wealth of knowledge to

their assessments, they may also bring biases that can negatively affect the program selected for the child.

In addition to the most frequently used tests such as the WISC-R, WRAT, Peabody Picture Vocabulary Test, Stanford Achievement Tests, and Detroit, other batteries used include the Spache, Wepman, Sucher-Allred, Gates-McGinitie, Frostig, and Beery. The profile derived from these tests enables the diagnostician to identify primary strengths in input, output, and memory. Skills in reading, spelling, and arithmetic are tested in as many ways as the diagnostician considers necessary to derive a comprehensive picture of the child's performance levels. Consideration of test results along with data obtained in the parent intake interview insures that the child's disability will be understood in the context of his/her total being.

2. *Summary of Evaluation.* The developmental history obtained in the parent intake interview provides the background against which objective test data must be examined. Both must be evaluated as honestly and objectively as possible. It is in these reviews that professionals will test their interpretative skills and reveal their biases. Review sessions in the public and the private sectors have the potential for settling on a course of action approximating a consensus that accomodates the prejudices of the participants. Consequently, programs specified for children by such teams may reflect the most expedient rather than the most promising design. Nonpublic centers have certain advantages that help them to avoid such compromises more readily.

Once the evaluation data has been reviewed and resulting recommendations for instruction agreed upon, plans for teacher inservice based on these can be developed. Private centers can play an important role in bridging the gap between public schools and private service providers. Staffs in the latter usually have greater flexibility and thus can go to the schools to discuss their findings and to encourage cooperative relationships in the interests of the child about whom both staffs are concerned. The fact that large case loads in public schools may keep a needy child from appropriate service—a situation that would be tolerated in few other arenas—gives the perceptive private practitioner an opportunity to be supportive in the setting where the child spends most of his/her formal learning time.

3. *Reporting to Parents.* Within a week the results of the evaluation along with the treatment recommendations are reported to the parents who have an opportunity to agree or disagree with the findings. It is important to act quickly once the evaluation process has

begun. Parents and children who have encountered barriers or denials in the past need to know that help is at hand. The precise relationship between parents' anxiety and children's academic performance is not known. However, the parent's response to the child is likely to influence the child's motivation and sense of worth. Anger directed at the failing child may block the child's learning, for example. Some educators believe that children who fail do so because they sense that it is easier for their parents to accept failure than it is for them to watch their children struggle. When parents understand this, they often are able to be more supportive, so helping them to do so is an important part of the treatment.

The parent report discusses therapy options including small group instruction in a clinic, individual tutoring, or both. One-to-one tutoring is recommended when the child's achievement is significantly lower than his/her potential or when the child's needs are not compatible with those of other children. Small instructional groups (clinics), in which students are matched by age, learning styles, strengths and weaknesses, and grade level are arranged whenever possible. The goal is for the children to progress together, deriving motivation, support, and focus on task from each other as well as from the instructor. Such a setting closely approximates their regular school environment, and interaction with peers is often helpful in promoting improved self-concepts.

It is important for parents to understand the therapy being employed. A consistent pattern of expectations and emphasis enables the child to develop positive skills. Confusions resulting when parents and instructors differ in their demands and expectations are debilitating to children, most of whom do want to please both parents and teachers. Therapy is seldom successful without parental support, so staff in this model devote considerable time to explaining to parents each step of the program and to stressing the importance of the parents' understanding and participation to their childrens' progress. Instructors meet briefly with each child's parents after each biweekly session. (Instructional clinics consist of two one and a half hour periods per week; the period is split into two 45 minute segments, each taught by one member of the clinic team. Teaming gives teachers a chance to share ideas and to evaluate their work on an on-going basis. Individual tutoring, when prescribed, is done in 45 minute sessions.)

4. *Individualized Educational Plan* (IEP). The treatment plan details the curriculum the child will follow. Shared with and agreed to by the parents, it is flexible and allows for frequent progress reviews. In

the model the IEP strives to be all that the proponents of PL 94-142 intended it to be. Since private centers can control the flow of pupils, they are in a good position to insist on comprehensive realizable IEPs. In the model, the IEP sets goals in these areas:

a. visual processing skills
b. reading—word recognition
—comprehension
c. auditory processing skills
d. visual motor skills—handwriting
e. oral and written language development
f. phonics—multisensory approach
g. spelling—multisensory approach
h. mathematics—multisensory approach
i. organizational skills—outlining
—paragraph writing
—essay writing
—note-taking
—study skills

Specific objectives for each 16-week period are spelled out in the IEP, as are the evaluation procedures followed, the child's current functional level, and the instructional techniques recommended. As each objective is reached, the IEP is checked and that goal is marked as having been achieved. The IEP addresses the child's strengths and weaknesses, suggesting materials which reflect modality strengths. It also indicates the instruments and methods to be used for reevaluation. The IEP may also recommend reinforcement that the parent is expected to provide at home. To aid the diagnositican in monitoring the therapist and the pace of learning, each instructor maintains daily progress notes. Along with objective data from retesting, these notes present a picture of the child's changing needs. Teacher observations, although prone to subjectivity, often add to the understanding of the child, and in this model they are considered vital in the effort to reach the goals set by the IEP.

5. *Reassessment.* Following each 16-week instructional period, the child undergoes retesting to determine the extent to which the IEP goals have been achieved. Breaking the treatment into manageable time segments helps the teacher to stay on task and allows the child to recognize personal achievement. Following reevaluation, the IEP is updated by the diagnostician who prepares a summary to share with

the parents and, when appropriate, with the child. Included in the summary is the recommendation for continued therapy or for dismissal from the program.

Preliminary Results Achieved in Model Program

In its four year's of operation the model has served 102 children. Of these, 23, 15 boys and 8 girls ranging in age from 5 to 8, have been studied extensively. These children participated in intensive individualized programs as described above. Before and after a 16-week session they were tested with the WRAT, Detroit, and Beery. Since not all children took all three tests, each was analyzed separately. The WRAT and Detroit contain several subtests, so pre- and post-training results were analyzed with Multi-Variate analysis for repeated measures (Tatsuoka 1971). A final T-test for matched samples (Ferguson 1981) was performed to compare before and after results on the Beery. These results are shown in Figures 1, 2, and 3. Mean scores obtained were WRAT, $F(2.44) = 4.985$, p. 0.05; Detroit, $F(3.54) = 11.802$. p 0.01; Beery, $T(21) = 4.268$, p 0.001.

Summary

It is difficult to know how much effect the selected diagnosis and treatment has on the child's progress in learning. Children who have followed the program established in this model appear to have made significant gains. Because the model stresses structure, teacher objectivity, and parental involvement, it supports the child in several important ways:

1. diminishing parental anxiety
2. stressing teacher accountability
3. providing frequent reevaluation
4. subjecting diagnosis and treatment to peer review
5. focusing on the learner's needs
6. centralizing diagnostic and treatment services
7. fostering flexible individualized programs.

Each of these elements is significant to the success of the program. Tutors working alone may not have access to the data which a center

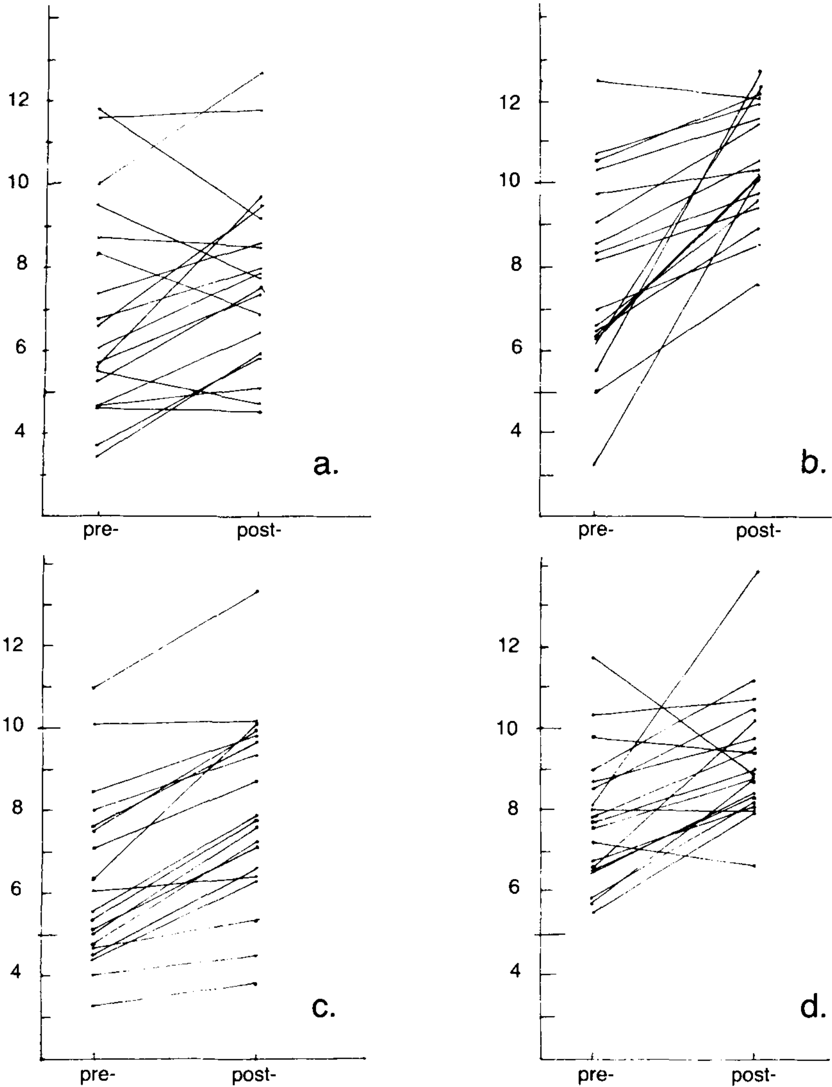

Figure 1. The Detroit Test of Learning Aptitude
a. Subtest "Auditory Attention for Words"
b. Subtest "Visual Attention for Related Syllables"
c. Subtest "Auditory Attention for Related Syllables"
d. Subtest "Visual Attention for Letters"
The scores on the subtests pre- and post-training for 23 children who had specific language learning disabilities.

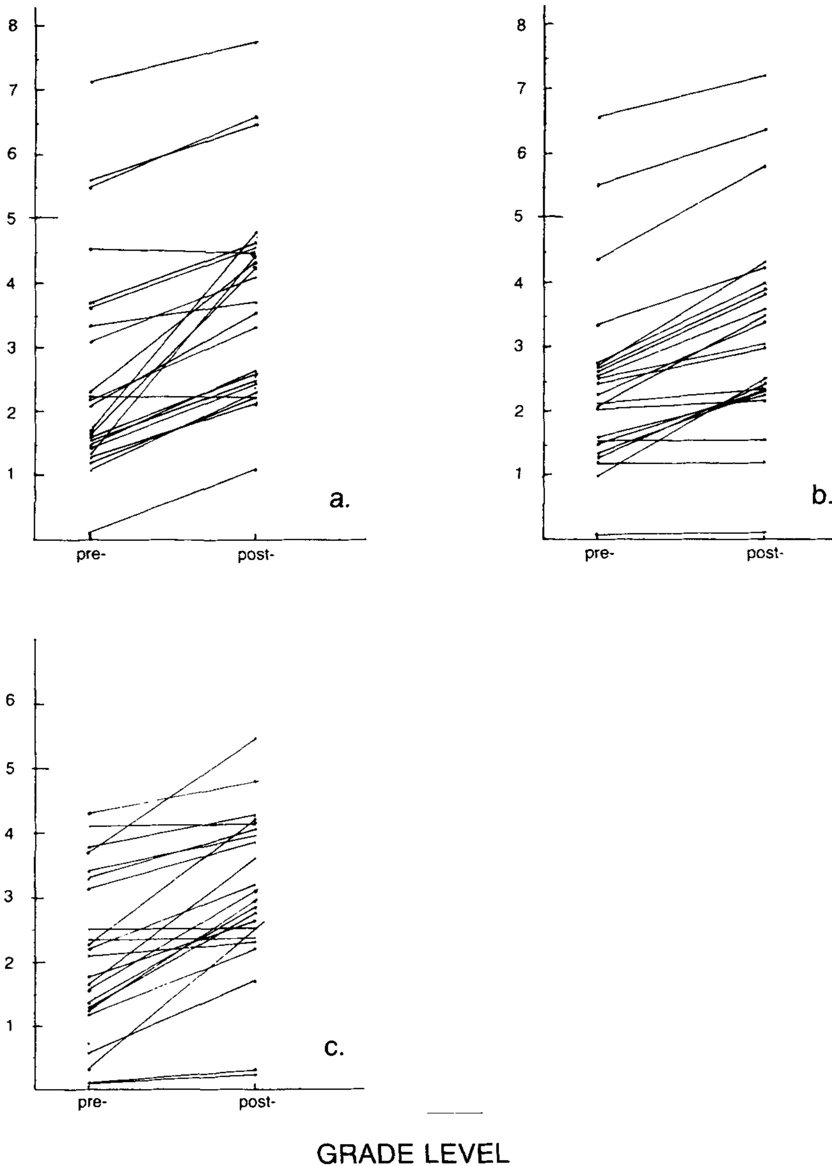

Figure 2. The Wide Range Achievement Tests
a. Subtest "Reading"
b. Subtest "Spelling"
c. Subtest "Arithmetic"
The scores on the Subtests pre- and post-training for 23 children who had specific language learning disabilities.

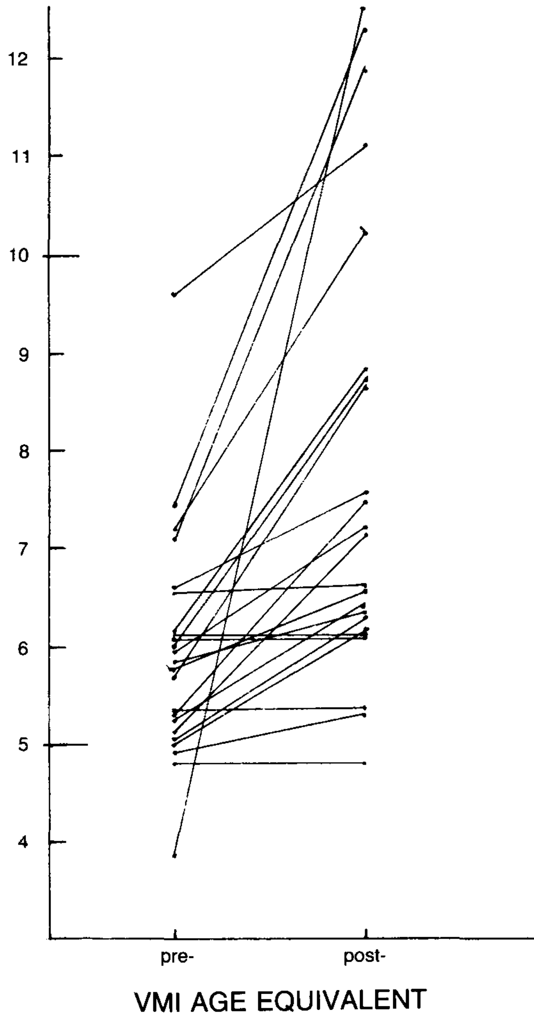

Figure 3. The Beery Developmental Test of Visual Motor Integration
The scores pre- and post-training for 23 children who had specific language learning disabilities.

like the model can provide; they may be locked into a single methodology unchallenged by other professionals. Public schools often are limited by budgetary constraints from providing intensive highly-individualized treatment. Children with moderate disabilities removed from the mainstream may pay a larger emotional price than necessary if they are placed in special schools segregated from their peers. The model discussed here represents one alternative for helping

the child in trouble. The structure within which help is provided is important and should not be left to chance. The faith which parents and children bring to the educational process is justified when learning centers are built on sound educational practices, are motivated primarily by concern for the individual child, and include provisions for staff accountability.

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