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Children who have learning disabilities which prevent achievement in skill subjects or behavioral difficulties which interfere with learning can be helped to learn to substitute more adaptive patterns for maladaptive ones. Because learning disabilities are only part of a disordered developmental process in a child, both clinical and competence theory and practice are integrated in the psychoeducational approach to evaluation and modification of the developmental disorder. Some dilution and fragmentation of effort may occur in certain settings, but the basic principles and specific techniques of the psychoeducational approach are generally applicable. These basic principles are concerned with structure, predictability, and clarity; management of environmental and intrapsychic stimulation; the success-failure dimension; the student-teacher relationship; the utilization of therapy for a child and his parents; and biological factors. A discussion of instruction for remedial efforts includes these topics: the basic skill subjects, cognitive training, motor skill training, and the use of special media, content, skill programs, and methods. A bibliography is also included. (MS)

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THE PSYCHOEDUCATIONAL APPROACH TO LEARNING DISABILITIES^{1,2}
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2. This investigation was partially supported by a grant from the Grant Foundation - Development of Teacher Training Methods.
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Today very few areas of childhood behavior receive as much attention, concern, intervention, and planning as learning disabilities. Currently, over thirty-five states have legislation to provide financial assistance to school districts for the development of special classes or programs within public schools for children described as educationally handicapped, emotionally disturbed, or perceptually handicapped (Engel, 1964). The concept of the handicapped child has been extended from the physically and mentally handicapped to other groups of children. A variety of disciplines who have a concern for the welfare of children are involved from the level of the individual handicapped child to the broadest one of remedial and prevention programs. Many of the Great Society programs are focused on providing social and academic training experiences at various levels of child development to correct, modify, and prevent school failures.

These programs have been based on a somewhat different theoretical model than clinicians have generally followed--the competence model

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(Rae-Grant, Gladwin, and Bower, 1966). The competence model stresses the development of basic ego skills through specific training activities and experiences (i.e., educational approaches). This trend which tends to ignore or is critical of the contributions of the clinical model (i.e., diagnostic and therapeutic approaches to pathology and its consequences) has given rise to what is sometimes called the clinical-competence controversy (Gladwin, 1966). This development has resulted in criticisms of traditional approaches to learning disorders and has provoked conflicts among individual professionals and professional disciplines. There is no doubt that the challenge presented by those who advocate training in competence rather than therapeutic remediation needs to be responded to in a constructive fashion rather than in a defensive one. A constructive response would be an integration or blending of these theoretical models (clinical and competence) rather than conflict and controversy between them. Sanford (1966) indicates the need to be concerned with correction and modification as well as what needs to be built up. This integration is represented in the psychoeducational approach to learning disabilities.

Definition of Learning Disabilities

Learning disabilities can be limited descriptively as reading disturbances, difficulties in performing mathematic processes, underachievement, either in general or in specific subject areas, and behaviors which interfere with learning such as short attention span, low frustration tolerance, hyperactivity, inhibition, faulty perception, poor memory, and others. Learning disabilities so defined are often

attributed to a solitary or primary cause. The tendency still exists to reduce them to: (1) symptoms of intrapsychic conflict, or (2) consequences of environmental experience including training methods, or (3) the resultant of neurophysiological patterns including constitutional equipment and faulty maturation, or (4) the effect of faulty perceptual and cognitive processes from whatever causes.

In our experience there are relatively few cases of learning disability where the resolution of personality conflicts or the employment of a different educational method or the training of compensatory mechanisms alone has resulted in change. Where this did appear to be so, on further analysis, more than a single simple intervention was involved. Of course, the tendency exists to look for simple prescriptions to deal with complex phenomena. Advertisements abound which capitalize on this wish fulfillment and call attention to special media, particular content, and different instructional methods as "the remedy." For the most part, these instructional methods and materials are empirically based and have not been carefully or systematically evaluated. While offering contributions, they are applied to disorders which are not well understood or differentiated diagnostically in specific terms.

An Orientation to Learning Disabilities

Academic performance and learning are but one aspect of personality functioning. When there are broad or narrow deficiencies in academic performance, there are usually associated disturbances in other areas of the child's development--social with peers and adults, body

and motor skills, age-appropriate hobbies and interests, dealing with the reality demands of the world, the control and expression of drives and affects, and self-esteem.

A general personality orientation to behavior broadens the problem and implies a broader approach to it. Unfortunately, conventional diagnostic categories do not capture the various maladaptive behaviors that may exist in a given case, nor do they necessarily communicate understanding about the nature of the disorder. Formulations which cover the descriptive symptoms and signs in the context of the developmental process offer greater usefulness and take cognizance of the general personality view.

However, a problem is posed by the general personality orientation and that is to limit the view of manifest behaviors as symptoms and reflections of underlying psychic processes and conflicts. Instead of dealing with altered and maladaptive behaviors at manifest levels the tendency has existed to expect them to change in correspondence to the degree that underlying conflicts are resolved. Healthy and adaptive patterns of behavior then develop spontaneously. There is much indication that these expectations are often not fulfilled, so that the basic propositions in our methods are challenged by many people.

The same process may occur where manifest behavior is viewed in a limited fashion as a reflection of disorganized neurophysiological patterns. Here training methods directed at the modification or correction of such patterns are expected to result in the emergence of

normative behavior. Again this is very often not the outcome.

Very often certain symptoms and symptom complexes attain a degree of autonomy or have a status without conflict which make other special environmental measures necessary for their modification or change. A particular common symptom complex where this occurs is learning disabilities where disorders in the learning process by themselves perpetuate the disorder regardless of their etiology or etiologies-- maturational, congenital, developmental, neurologic, psycho-social, instructional, or an interaction among them. The disability has an importance in its own right and in its consequences on the child, his family, teacher, and other environments. Therefore there are limitations to a primary etiologic approach that does not consider disabilities in their own right and their consequences.

From clinical experience it is possible to evaluate a child with learning disabilities that includes: a descriptive behavioral diagnosis of symptoms and signs, a general personality orientation, a developmental perspective, and a multiple etiology viewpoint. One can also approach the child by the use of therapeutic educational methods based on both clinical and competence models. This diagnostic and remedial approach integrates both psychological and educational insights and techniques and is identified as the psychoeducational approach.

The Psychoeducational Approach and Its Application

The psychoeducational approach is most favorably conducted in a setting such as day care where the contributions in evaluation and

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remediation from a number of professional disciplines can be integrated and where one can structure and program educational, training, psychotherapeutic and environmental experiences in specific ways.

The Day Care Center in the Department of Psychiatry of the University of Colorado Medical Center represents such a setting which has the advantages of a limited population of 16-18 children of elementary school age, and of a well-trained and qualified professional staff with the further resources of a Medical Center and of a School of Education.

However, one cannot help be cognizant of the small contribution of the Day Care Center in relation to the very large number of socially, educationally, and emotionally handicapped children within the community. Therefore one considers what can be translated and applied in general or in specifics to other treatment and educational settings? Given that there are realistic limitations in goals that can be reached with many individual cases in intensive treatment we should also expect limitations when remedial efforts are applied in settings where realities exist such as large numbers of children, lack of trained specialists, inflexibilities in systems, and services provided by people who often do not communicate with one another.

When one moves from an intensive integrated therapeutic educational program to other programs with fewer resources, there is of course dilution. Furthermore, fragmentation of services also occurs where, for example, treatment is provided at an office or clinic, tutoring with a teacher after school, and educational efforts with another teacher in a school. Such fragmentation can exist within one

institution but also tends to increase as geographic separation of facilities exist.

Despite these problems, the application of principles in the psychoeducational approach and of specific remedial techniques within that approach to public and private settings offer potentials for more effective remediation of learning disabilities. The psycho-educational approach envisages that the environments of the child-- school, home, church, playground, and neighborhood--not just be simple maintenance or holding facilities or points of neglect while psychotherapy, medication, training procedures, and/or educational measures are taking place independently of them. Furthermore the disabilities of the child in their own right and their consequences need to be dealt with directly. A child can be helped to learn more adaptive patterns to substitute for maladaptive ones, and psycho-therapy or counselling may make him more receptive to such changes. Training and re-education can develop ego skills and an improved self-concept which can also facilitate psychotherapy. Medication which reduces marked hyperactivity or anxiety may make the child more responsive to changes in his environment. Family counselling can alter responses of pessimism, frustration, and negative interactions with a handicapped child.

Questions arise as to how one can provide all these services and how they can be integrated in settings such as private offices, schools, and clinics. The various elements of the child's environment and of his disabilities can be selected according to: (1) their major sig-

nificance, (2) their accessibility, (3) the possibility for effecting change, and (4) the nature and extent of the symptoms and signs of maladaptive behavior (Hobbs, 1964). Integrations can take place at different levels and with various people who have contact with the child. A teacher who is working with the child on a reading program can instruct at the child's performance level and also be aware of reading content of motivational interest and of his feelings of anxiety and despair about reading. Ongoing communication among the various professionals who know the child that shares information, pools ideas, and develops approaches is another integration. Team meetings with parents are still another.

As indicated previously the psychoeducational approach integrates the insights and techniques of medical psychology and education. The psychological aspect deals with behavior in terms of feeling states, dyadic relationships to others, cause-effect relations, past experience related to present functioning, and latent meanings. Behavior is complex and multidetermined and can be dealt with at various levels and meanings. The educational aspect deals with behavior at manifest levels, in terms of moral and standard expectancy norms and from the social adaptation viewpoint. It stresses group approaches, the here and now of behavior, and empirical and practical techniques.

While these two aspects appear divergent at first glance, they can be unified so that both short and long-term goals can be considered, behavior can be understood yet not condoned, competence and mastery can be developed along with the communication of feelings and con-

flicts, behavior can be viewed in both surface and depth, and the individual can be approached in the context of a group. Such a synthesis requires relationships among professional groups that contain mutual respect, trust, tolerance, and communication. Difficulties arise when the investments of professionals promulgate their own self-enhancement.⁴

How does one apply the psychoeducational approach to the diagnosis and remediation of learning disabilities? The procedures involve diagnosing behaviors and behavior patterns at a descriptive level from a variety of information sources including historical accounts and direct observations. The behaviors range through verbal, motor, perceptual, body, social and cognitive areas. They may or may not vary according to situational contexts--home; classrooms with different teachers, subject matter, and peer groups; time of the day; academic and psychological testing; treatment hours; physical examinations. Diagnosis is not just limited to a psychiatric and/or biological aspect but is a broad behavioral one. From behavioral diagnoses it is possible to program and plan for the child individually and in groups, both in general and specific terms. Diagnosis is of course an ongoing process over time which will change as more information becomes available, behavior patterns and their dynamics become

4. Professional training has the tendency to engrain a discipline with standard procedures and value orientations that are viewed as superior to those of other disciplines (Gardner, 1965). As a result one remains unaware of the procedures and orientations of professions that are closely allied to each other. Changes in methods also become difficult because we prefer to repeat what is familiar and valued even when it is inappropriate to the problem (Sarason et al, 1966).

clarified, and as modifications in behavior develop. Therapeutic educational techniques may of course vary with the collective diagnostic picture and therefore represent an operational viewpoint at a given time.

From the psychoeducational diagnosis a decision is made regarding the setting placement for a child in which therapeutic educational measures will be used. One needs to consider the special class or school within a spectrum of educational services that range from the regular classroom to residential facilities. These services are buttressed by psychological treatment, medical services and remedial services that are either within or outside the educational or clinical facility.

Unfortunately we are often not in the position to make the desired decisions for a variety of realistic considerations--lack of treatment and special education facilities and personnel, financial limitations, resistances on the part of children and parents, and geographic location of facilities. Given such realistic limitations we are then faced with designing programs for children within facilities that are available and can be modified. Special services may exist within them or may be provided by outside facilities.

Some General Psychoeducational Principles

There are a number of principles in the psychoeducational approach to learning disabilities and other behaviors associated with them. These principles are foundations on which specific therapeutic and educational measures operate. In fact many specific measures contain

such principles and may have their salutary effect because of them.

One principle may be designated: structure, predictability, and clarity. Handicapped children often experience their environment and inner selves as disordered, changeable, and confusing (Haring and Phillips, 1962). Therefore, a therapeutic educational environment should provide structured tasks, predictable responses and events, and repetitive consistency. This is further facilitated when one can create greater continuity of experiences between home and school. An ordered environment offers the beginning of security and stability on which learning can take place. It is provided by a predictable teacher who communicates clear reasonable expectations of behavior and can set behavioral limits with external controls when necessary. A teacher controls the flow of activity in the classroom through providing directions, setting the pace, and initiating, maintaining and concluding activities. The effective management of transitions to and from different teachers, subject matter, classrooms, groupings, and nature of activities further maintains structure and stability (Kounin and Obradovic, 1968).

Closely related to structure is the management of stimulation. Stimulation originates from the environment and from within the child and then becomes interactive between child and environment. Cruickshank et al. (1963) have evaluated the effect of minimizing environmental stimuli and maximizing the stimulus value of learning materials on hyperactive distractible children. He also advocates reducing space in the classroom through partitioned booths and providing a

structured school program. Environmental stimulation comes from inanimate objects (charts, drawings, mobiles, flowers, fish bowls, and the like) and from adults and children within a room. Control over this input can be employed in general (by reducing messiness and limiting the number and stimulus properties of objects) and in specific ways for particular children (by the use of shield boards, placement in a location within a classroom, and altering group composition). Stimulation from within the child presents greater difficulties. One relies on therapy and the judicious use of medication. Some experimental work has been done by Cooke (1966) using tape recorded neutral background music to screen out internal stimulation.

Another principle in the psychoeducational approach is the management of success-failure issues within the child (Holt, 1965). A child with learning disabilities is familiar with failure not only in academic areas, but often in other areas of his development as well. A child may employ various defenses against failure such as avoidance, denial, withdrawal, deviance, somatization, and projecting blame on a variety of circumstances. Such defenses may be protective of anxiety and depressed feelings but they become the servants of continued failure. Intervention is essential for change through dealing with the feelings rather than the defenses and by programming success experiences. To program for success one has to find an achievement level, to consider non-academic as well as academic areas, and to deal with other behaviors of the child

such as short attention span, feelings in a group, frustration tolerance, and the like. For example, Terrance had only forty-five seconds attention span so that in order to experience success he had to have tasks that took forty-five seconds. Another child, Frank, would read a line and a half before he would start checking and rechecking the words. When books were made to contain only one and one-half lines on a page, he could experience success.

However, a child may not be able to readily accept success no matter how carefully it is planned. Success can be threatening since it may be unfamiliar, result in failure again, or represent giving in to others. There are many psychological meanings to the success-failure dimension such as growing up versus being small, being loved versus rejected, being aggressive versus being passive, being masculine versus feminine, and achieving gratification versus self-denial. Success-failure may be a method by which a child controls the parents and teachers in his environment. One child, Keely, viewed success as leading to extraordinary demands being made upon him by his family and to becoming a professional adult which he both feared and disliked. Failure avoided these unpleasant anticipated consequences. Another child, Nelson, while having an excellent oral language vocabulary, read at the first grade level at age nine. He still insisted that his mother should read to him at night perpetuating a passive dependent position. To be successful meant giving up this gratifying position.

No matter how sound and appropriate psychoeducational principles

are, their effectiveness will be influenced by the student-teacher relationship. This does not necessarily mean that the emotional relationship should be permissive, loving, kind and giving. Such attributes may not necessarily be honest, sincere, appropriate, or realistic. The well being of a child may require that a teacher be tough, consistent, and controlling. Aggressive engagement with a child can indicate one cares and is concerned while permissiveness may be a manifestation of hostile neglect, rejection, or helplessness. Frequently the child distorts the real image of the teacher based on past school experiences and on transferences from other adults in his past and present life. These distortions need to be dealt with in the actual relationship so that corrective experiences can occur.

Psychotherapy of the child and his parents deals with those issues that are not correctable through environmental measures alone. Feeling states and their origins, conflicts, past experiences, present interactions, resistances, relationships to others, instinctual expressions, clarification of the learning situation, and less adaptive defenses constitute the work of therapy. One does not usually deal with all of these issues, rather focuses on those of most crucial significance to facilitate more effective adaptation and to foster development. For instance with Newton, the therapist focused on trust and trustworthiness, the direct verbal expression of feelings, and the realistic but positive limitations of his adoptive parents. With Stuart who was adopted, it was necessary

to work through his feelings about himself and towards others that originated in the desertion by his real mother at age two. His poor self-esteem played a role in academic failure and anticipated failure. He saw adults as potentially rejecting so that a teacher who corrected his work was seen as bad and rejecting. His major defenses in dealing with these feelings were aggressive toughness, physical assertiveness, and periodic physical and verbal hostile outbursts.

Parents of handicapped children are also caught in the web of past failure in school. Unpleasant past experiences and current feelings towards the child and his program are the focus of discussion in their treatment. School and learning experiences in their own childhood may be related to their responses and feelings as parents today with their child. Advice also has a place in treatment along with the expression of feelings and insight into the nature of the problems that exist with the child and their family. Regular contacts with teachers and other professionals who know their child develop a working alliance with the therapeutic educational program. This should include honest tactful sharing of information, impressions, and insights. While such meetings are fraught with tension in the child and his parents, they mobilize feelings that can motivate change or lead to a more realistic perspective of the problems that exist.

A psychoeducational approach should also consider biological factors. Sensory and motor deficiencies of whatever origin influence

behavior and programming for a child. Medical illness may result in absences from school, in a deficiency of energy available for tasks and in poor attention and memory. The correction of handicaps--visual, auditory, posture, speech, and motor--can influence performance both directly and indirectly. Difficulties from handicaps develop not only from their actual physical limitations but from the imagined ones as well. Those handicaps which are only partially correctable need to be approached with an attitude of realistic limitations and training for compensatory mechanisms. General hygienic practices reasonably encouraged--dental care, adequate nutrition, cleanliness, appropriate grooming, and adequate rest--are also important supportive measures. They are often taken for granted when indeed they do not exist. Even when there is evidence of parental neglect, a child can assume responsibility for hygienic care when a teacher fosters their development. Medication is sometimes useful in relieving anxiety and diminishing disorganized behavior so that a child is more open to therapeutic and educational measures. The use of sedation at night may insure adequate sleep and decrease nightmares. A tired child, for whatever reason, has a diminished capacity for organized behavior, frustration tolerance, and attention. If anxiety is a constant feature of behavior a tranquilizing drug may be useful. A chronic high level of anxiety may lead to disorganized behavior or may consume so much energy in the service of control that little is available for educational and social experiences. If disorganization in behavior does not appear

to be primarily related to anxiety, but seems to be a lack of integrative ability or of screening stimulation, amphetamines have sometimes been useful. In some cases, disorganized behavior has episodic impulsive discharge characteristics which suggest seizure activity. Electroencephalographic study and anticonvulsant drugs should then be considered. In clinical experience with drugs, the psychological meanings of taking medication to the child, his parents, and professional staff alter or potentiate a therapeutic response.

An example of a boy who had a favorable response to dexedrine was Dick, age ten. Dick was far below grade level in basic reading and mathematical skills, and had repeated experiences of school failure. One striking behavior pattern was an alternation between mainly constricted inhibited motor and social responses and occasional impulsive explosive outbursts. His speech was so rapid that it was difficult at times to understand his communications. His writing and drawings were small, hesitant, and slowly performed. Neurological evaluation, electroencephalographic study, and psychodiagnostic testing revealed what has been characterized as showing soft neurological signs. His family reinforced control over expressive personality functions and his father had high expectations that Dick be competent in vigorous physical endeavors. The use of dexedrine seemed to result in more effective modulation of control and expression. However, there was also a modification of parental expectations for both overcontrol and highly vigorous activities. In addition he

had speech training which gave him experience in talking clearly at different speeds. He also experienced success in a variety of activities which supported his self-esteem.

Teaching Approaches

Teaching approaches to handicapped children involve both managerial and instructional elements. Effective management is the means to an end, the end being learning. Indications of effective management are low deviancy rates and high task involvement, measures which have been specified and obtained by Kounin (1966, 1968) with high reliability in classroom situations. However, effective instructional methods which maintain interest and achieve success have an influence on management. Therefore there is an interaction between management and instruction. While managerial styles differ among teachers, they can be characterized and evaluated as to their effectiveness.

From clinical experience the basic skill areas of mathematics and reading require the most individualized programming. The objective is to use instructional methods that capitalize on the learning styles and emotional attitudes of the child. This is more easily stated than accomplished since our diagnostic methods are far from satisfactory. Many times a method introduces novelty to a child which captures his interest while a familiar method that has been so fraught with failure has no appeal. Other times a teacher selects an approach that capitalizes on strengths within a child such as the use of the Initial Teaching Alphabet method of reading (Pittman)

when phonic skills are present, or of the words in color reading method (Gattengo, 1964) when visual discrimination and mathematical abilities are present. The Fernald method of reading (Fernald, 1943) is referred to as a kinesthetic approach since letters in words are traced. However visual and phonic elements are also involved as well as a child's own word choice and story writing. There are also a series of procedures that are well organized and involve novelty. However, any method or technique will also depend on the teacher's interest and enthusiasm which is imparted to the child. It is not my purpose to review the variety of methods and their combinations that are and can be employed in teaching reading and mathematics. A few examples may illustrate the clinical instructional skills that are involved.

Wanda, age 7, had learned the alphabet, beginning and ending sounds of words, and some short and long vowel sounds. However, she could not read. Since Wanda appeared to think very concretely, the initial teaching alphabet reading method with its forty-four symbol sounds that do not change was considered. However she had already learned that sh was the quiet sound and that ch was written with a "c" and an "h." Being a very concrete thinking child, the teacher thought that Wanda would be confused if sh became ch and ch became sh under the ITA system. Instead of superimposing a new approach on some already traditionally learned accomplishments, the teacher used language chart stories and repetition of learned material to develop confidence and enhance reading development.

Eric, age 8, read well and performed at grade level in most subject areas but would not do subtraction problems even though the teacher went over this process many times. It was known that Eric did not get the amounts and kind of food he wanted since his older siblings were more assertive. An adult was not always at home during meal times since father had left the home and mother had to go to work early in the morning. The teacher decided to see what would happen if subtraction was presented through grocery store food ads. Eric not only did subtraction but began to talk about the food situation at home with his teacher. This led to discussions with his mother who was able to improve the eating situation at home.

Many children with learning disabilities display more general disturbances in perceptual, cognitive, conceptual and motor processes. These processes are not easily separated from each other, so that it becomes artificial to distinguish one aspect alone. Given the difficulties in understanding the nature of perceptual-cognitive-motor processes, there is much empirical and experimental evidence that points to disturbances in such operations in children with learning disabilities. Programs have been developed to evaluate these abnormalities and to remedy them through various training procedures (Dubnoff, 1965; Frostig and Horne, 1964; Kephart, 1960; McCarthy and Kirk, 1961). Our questions about such programs while recognizing their contributions are that they may assume to evaluate all the possible deficiencies, that their claims can be

overstated and that children of considerable heterogeneity may be expected to fit the program. For example, Keith, age 7, showed a figure-ground disability on the Frostig test battery. However, when the psychologist changed the nature of the embedded figure, Keith could make the differentiation relatively easily. This does not mean that there was no figure-ground disability rather that the disability became manifest when confronted with certain content. Furthermore, it raises questions about a few test tasks being able to capture the nature of disabilities and whether an overly-simple explanation for a phenomenon does a disservice.

Our approach to perceptual-cognitive-motor disabilities has been to use a variety of testing procedures depending on the nature of the phenomenon to be evaluated and explored. In addition behavioral observations and inquiries during academic tasks are also used. Programs are then developed individually and for small groups making use of the evaluations and of procedures developed by our staff and other workers in the field. For example, Lois, age eleven, showed deficiencies in mathematics where she demonstrated a difficulty in reversing processes from addition to subtraction and from multiplication to division. It was our impression that she had difficulties in shifting to a different cognitive set. Therefore, an individual operant program was developed to train her in shifting cognitive sets. Clinical observations demonstrated that she was then able to perform mathematical processes with greater flexibility.

Santostefano (1967) has questioned many perceptual and cognitive training programs as not dealing with more basic elementary skills. For example, he has developed a program in visual focal attention for children with a variety of problems who demonstrate this deficiency. It is applied individually and can be performed by a relatively unskilled but trained instructor. In a similar fashion Cooke and Parsons (1968) have developed programs in auditory attention and discrimination for small groups of children. They have also extended such programs into cognitive style training covering such dimensions as reflective/impulsive thinking, analytic/global thinking, and cognitive socialization, using reinforcements as rewards for the desired activity. This work, while still exploratory, offers promising training opportunities for children. It holds etiologic considerations in abeyance, and focuses on disabilities and their correction.

The work of many clinicians (Ayres, 1961; Dunsing and Kephart, 1965; Kephart, 1960; Mittleman, 1957; Naville and Blom, 1968) has pointed to the importance of the development of motor skills. While motor skills have numerous purposes, they are also considered precursors of mental activity, in particular cognition. Psychomotor disorders (and neuromotor equipment) appear to have a relationship to learning disabilities. Therefore, specific training in body movement, movement in space, and space and time discriminations offers a variety of opportunities for correction. This training can be incorporated in a physical education program for individuals

and groups.

One needs to be aware of the many teaching media skill programs, methods, and gadgets that are now available on the instructional market without indiscriminately accepting their claims. They are of course no substitute for a skilled clinical teacher who uses managerial and instructional methods based on the cognitive and emotional assessment of an individual child and of a group of children. However, novelty and newness can assist the child in achieving success and mastery. More traditional materials can then be handled with adequacy. Some instructional aids can be manipulated by a child himself and thereby achieve independent control. The content of learning materials can consider the developmental and idiosyncratic interests of children so as to foster motivation to learn. This may be particularly utilized in materials for reading (Zimet, Blom, and Waite, 1968).

Summary

In this presentation on the psychoeducational approach to learning disabilities the position has been taken that these disabilities are only part of the disordered developmental process in children. Diagnostic and therapeutic educational measures which focus on the academic area alone or deal with single etiologic factors are questioned. The contributions of both clinical and competence theory and practice are integrated in the psychoeducational approach to evaluation and modification of the developmental disorder. While dilution and fragmentation in effort occurs in different

setting placements for children, basic principles and specific techniques of the psychoeducational approach can be applied in a variety of settings.

Some of these basic principles include: structure, predictability and clarity; management of environmental and intrapsychic stimulation; dealing with the success-failure dimension; aspects of the student-teacher relationship; the utilization of therapy for a child and his parents; and the consideration of biological factors. Some aspects of managerial and instructional approaches have been presented. Instructional elements have been discussed in the areas of basic skill subjects, cognitive training, motor skill training, and the use of special media, content, skill programs, and methods.

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