R E P O R T R E S U M E S

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THE BRAIN-INJURED CHILD, A SUMMARY REPORT OF CONFERENCE ON THE CHILD WITH LEARNING DISABILITIES (JERSEY CITY, MARCH 25, 1965).

BY- RUVIN, HAROLD EZOR, EDWIN
JERSEY CITY STATE COLL., N.J.
NEW JERSEY PARENTS ASSN. OF BRAIN-INJURED CHILDREN

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DESCRIPTORS- *MINIMALLY BRAIN INJURED, *DIAGNOSTIC TEACHING, *LEARNING DIFFICULTIES, NEUROLOGICALLY HANDICAPPED, CHILDREN, SPECIAL EDUCATION, ILLINOIS TEST OF PSYCHOLINGUISTIC ABILITIES, JERSEY CITY

THE BASIC VIEWPOINT OF THIS CONFERENCE IS THAT CHILDREN WITH LEARNING DISABILITIES MUST BE EVALUATED INDIVIDUALLY ACCORDING TO THEIR SPECIFIC DYSFUNCTIONS AND PLACED IN EDUCATIONAL SETTINGS ACCORDING TO THEIR INDIVIDUAL NEEDS. IN THE FEATURED ADDRESS, "NEW APPROACHES IN EDUCATION FOR THE CHILD WITH LEARNING DISABILITIES," BARBARA BATEMAN DESCRIBED THREE MAJOR TYPES OF PROBLEMS OF CHILDREN WITH LEARNING DISABILITIES--VISUAL-MOTOR, AUDITORY-VOCAL, AND READING. IN THESE AREAS, SPECIAL EDUCATION MUST TEACH SKILLS NORMALLY LEARNED AUTOMATICALLY. IDEALLY, THESE CHILDREN SHOULD BE IDENTIFIED AS EARLY AS POSSIBLE TO PREVENT SCHOOL FAILURE AND OTHER NEGATIVE EXPERIENCES. EARLY DETECTION WOULD ENABLE TEACHERS TO TAKE ADVANTAGE OF CRITICAL LEARNING PERIODS WHEN CERTAIN SKILLS ARE MORE EFFICIENTLY TAUGHT THAN AT ANY OTHER TIME. WHILE SOME CHILDREN WITH LEARNING DISABILITIES NEED RESIDENTIAL FACILITIES, MANY DO NOT. INDIVIDUAL NEEDS SHOULD BE CONSIDERED. DIAGNOSTIC TEACHING IS THE RECOMMENDED METHOD WITH BRAIN-INJURED CHILDREN: THIS INVOLVES LOCATING THE LEARNING DIFFICULTY AND DESCRIBING THE PROBLEM BEHAVIORALLY. MODIFICATION OF THIS BEHAVIOR THEN TAKES PLACE. THE ILLINOIS TEST OF PSYCHOLINGUISTIC ABILITIES IS A GOOD DIAGNOSTIC TOOL. SEVERAL TRENDS IN THE EDUCATION OF CHILDREN WITH LEARNING DISABILITIES ARE--(1) THE CREATION OF GROUP SCREENING TESTS, (2) INCREASED FOCUS ON PREVENTIVE TEACHING, (3) MORE COOPERATION AND COMMUNICATION AMONG VARIOUS DISCIPLINES (ALTHOUGH COMMUNICATION BETWEEN TEACHERS AND RESEARCHERS IS LACKING), (4) RAPID ADOPTION OF FADS, AND (5) RESEARCH ON BETTER QUESTIONS AS MORE ATTENTION IS PAID TO INDIVIDUAL NEEDS. A 15-ITEM BIBLIOGRAPHY IS INCLUDED. (RS)

A Summary-Report of the

CONFERENCE
ON THE
CHILD WITH LEARNING DISABILITIES

(THE BRAIN-INJURED CHILD)

At
Jersey City State College
Jersey City, N. J.

Thursday, March 25, 1965, 4 — 9 P. M.

Sponsored jointly by the Department of Special Education, Jersey City State College, and the New Jersey Parents Association of Brain-Injured Children

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prepared by Harold Ruvin, Associate Professor, Department of Special Education, and Edwin Ezor, Assistant Professor, Department of English

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THE NEW JERSEY PARENTS ASSOCIATION
OF BRAIN-INJURED CHILDREN

for their financial support of this Conference

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INTRODUCTION

THE POINT OF VIEW UNDERLYING THE CONFERENCE

The use of the diagnostic category brain-injured is unsatisfactory to educators for several reasons. First, the term itself lacks precision. It can refer to the epileptic, the cerebral palsied, the blind, the aphasic, the perceptually handicapped, etc. Second, the term gives no aid and comfort to educators who are concerned with educational treatment. The label trainable mentally retarded has at best informs educators that a child probably has certain learning characteristics and patterns; the label brain-injured gives educators no information. Based on the experience of 53 organized classes for brain-injured children in New Jersey, educators know that the "Strauss-Syndrome Child" is only one of many kinds of children who are accepted into classes for the brain-injured. Third, the term creates difficulties for administrators and Boards of Education in determining educational guidelines for such classes.

Educators must recognize that there are children with many different kinds of problems that eventually lead to learning difficulties. Administrators must be concerned with dealing with children who are not learning, and with organizing education patterns that best meet the needs of individual children. For some children, administrative support must be provided to maintain them in regular classes. Itinerant teaching, resource rooms, remedial help, and family counseling are among such supportive services. Other children may need temporary special-class placement for training in perception. Some children can function only in special classes.

We at Jersey City State College support the concept that children have to be evaluated individually and placed in that educational setting which can best help them. We tend to look with some skepticism at the "hardening of the categories" which is so diversifying special-education classes that eventually we may see special classes for children with red hair. The educator's task is to educate. Education is not only a matter of imparting the 3 R's, but includes helping children to learn to control their behavior and their emotions. We prefer to think of children labeled brain-injured as children with learning disabilities. From such a point of view, this conference was organized. The chairman of each panel was instructed to present this point of view as a basis for opening discussion.

Dr. Michael B. Gilligan, *President*
Dr. William A. Liggitt, *Dean of Instruction*
Dr. William Ramsey, *Dean of Administration*
Department of Special Education
James F. Magary, Ph.D., *Chairman*
Harry B. Bice, Ph.D., *Professor*
Erwin B. Dexter, Ed.D., *Professor*
David B. Ferber, M.A., *Assistant Professor*
Harold Ruvin, M.A., *Associate Professor*
Anthony B. Suraci, Ph.D., *Associate Professor*

PROGRAM OF THE CONFERENCE

4:00 – 4:15 Registration and coffee

4:15 – 6:00 Panels designed for:

I *Physicians:* Medical Diagnosis of the Minimally Brain-Injured Child

II *Social Workers and Parents:* Organizing Nursery School Programs for Brain-Injured Children

III *Teachers:* Clinics for Teachers of the Minimally Brain-Injured Child

IV *Parents:* Counseling the Parents of the Brain-Injured

V *Teachers and Parents:* Improving Language and Language Activities

VI *Administrators:* Administrative Problems in the Organization of Classes for the Brain-Injured

VII *Psychologists:* Psychological Diagnosis of the Brain-Injured

VIII *Parents:* Recreational Activities for the Brain-Injured

6:00 – 7:15 Buffet dinner – Main Dining Room, Vodra Hall

7:15 – 9:00 Featured address: "New Approaches in Education for the Child with Learning Disabilities," by Dr. Barbara Bateman, Institute of Research on Exceptional Children, University of Illinois

SUMMARY OF PANEL DISCUSSIONS

Panel: *Physicians:*
Medical Diagnosis of the Minimally Brain-Injured Child. Harold Perkel, M.D., F.A.A.P., Bayonne, chairman; Arnold Gold, M.D., Neurology and Pediatrics, Columbia-Presbyterian Medical Center

Dr. Gold spoke to a panel composed mainly of physicians in the North Hudson area, on problems of diagnosis and management of brain-injured children. Much of his talk was illustrated by slides.

Panel II: *Social Workers and Parents:*
Organizing Nursery-School programs for Brain-Injured Children. Mrs. Ruth Knoblauch, chairman; Mrs. Marie S. Nicholas; Mrs. Ruth Lehr, Specialist, New York City Bd. of Ed.

The panel, using programs in Bayonne and East Orange for special reference, advocated that (a) nursery-school programs be established for brain-injured children as early as possible; that (b) such programs are useful for establishing language and speech perception and skills, social/emotional ability (by providing opportunities for both group and individual tasks and interrelationships), motor abilities, and auditory discrimination; and that (c) such programs can help the child to develop self-realization, a body image and a concept of self, and afford him a means of relieving his frustrations. Programs in such schools are necessarily highly individualized because of the wide range of abilities among the children, but early establishment of group activities is not unfeasible.

Panel III: *Teachers:*
Clinic for Teachers of the Minimally Brain-Injured Child Dr. M. Jerome Weiss, JCSC, chairman; Elizabeth Freidus, consultant on BIC; Esther Morton, teacher of BIC; Betty Haufrecht, teacher of BIC; Bea Westin, Fellow in Special Education, Teachers College.

The panel members, comparing experiences, stressed (a) the importance of the teacher's knowing as much as possible about the specific nature of each child's specific disfunctions, emotional overlay, and relationships with parents and peers; (b) the need for constant evaluation of the child's progress within the special class; (c) the value of flexible structuring of programs for the BIC, with the most

elementary needs and problems of each child being kept in mind, with psychological and recreational aids being employed, and with close cooperation being maintained between teachers and administrators; (d) the need to involve the child as much as possible in planning his own activities, and to give the child the feeling of successful accomplishment; (e) the importance of regarding the child as a whole person, for whom the program must change as the child himself changes, and who will continue to need some help in the special class even after he has been moved by easy stages into the regular class when he will receive approval and success there.

Panel IV: *Parents:*
Counseling the Parent of the Brain-Injured Child. Prof. Seymour Lemeshow, JCSC, chairman; Dr. Sol Gordon; Prof. Anthony B. Suraci, JCSC.

The panel discussed some of the issues in parental management of the brain-injured child.

Panel V: *Teachers and Parents:*
Improving Language and Language Activities. Prof. Erwin B. Dexter, JCSC, chairman; Dr. Gilbert Schiffman; Mario Pascale, Fellow in Special Education, Teachers College.

The panel stressed the importance of achieving meaningful contracts between teacher and child by the "behavioral approach" to communication, and of the teacher's assessment of the child's level of communication. Such assessment can be achieved, it was asserted, through observation of general motor function, visual-motor function, auditory function, and level of speech and language function. The causes of reading disabilities – genetic, social and emotional – were summarized, together with methods of teaching reading: The basal reading approach, individualized reading, the synthesis approach, experiential reading. Particular consideration was given to the Gillingham and Fernald methods, which involve the so-called "word triangle" and use of a variety of stimuli, respectively. Each such method may have particular usefulness for a particular brain-injured child; the teacher must be flexible.

Panel VI: *Administrators:*
Administrative Problems in the Organization of Classes for the

Brain-Injured. Prof. Harold Ruvin, JCSC, chairman; Dr. George Boone, State Dept. of Special Education; Dr. Harold Yogman, Asst. Supt. of Schools, Bayonne; Mr. Benjamin Barbarasch, Director of Special Education, Paramus

The panel discussed the criteria and legislation for organization of special classes, and the problems which arise when a new class is organized in a specific community. It was pointed out that 53 classes have been organized in all of New Jersey, but only for children aged six or over; no classes are presently available for younger children. Problems arise too, it was stressed, when children who leave the special classes must be replaced by others, and when children entering the regular classes continue to require help and support. It was stressed that communities with such classes should share information, methods and experiences with other communities facing similar problems.

Panel VIII: *Psychologists:*
Psychological Diagnosis of the Brain-Injured. Prof. James F. Magary, JCSC; Prof. Harry Bice, JCSC; Robert Russell, psychologist, Glen Rock

The panel discussed extensively the role of the psychologist in the diagnosis of the brain-injured child.

Panel IX: *Parents:*
Recreational Activities for the Brain-Injured. Dr. Harold Weiner, chairman; Jay Lev, student, JCSC

Special reference was made, in this panel, to a program put on by the Millburn Recreational Association and put on in St. Stephen's Church. In this program, it was emphasized, a brain-injured child is not looked upon as such, but as a child who has specific dysfunctions, needs help rather than labeling, and needs an adult to lean on and trust. Illustrative games (some of which also have academic subject-matter value) were cited; in all cases, the adult helpers must be patient with the children who fail to understand rules or the need to cooperate with others in games, and must explain all details carefully to each child. The importance of the adult helper's learning to see the world as the child does, to assist the child in passing by identification with imaginary figures and real adults out of the stage of infantile self-satisfaction, was stressed; games can be meaningful and helpful in this process.

NEW APPROACHES IN EDUCATION FOR THE CHILD WITH LEARNING DISABILITIES

by Dr. BARBARA BATEMAN
Institute of Research with Exceptional Children
University of Illinois

I am delighted to be here, in spite of the fact that I do not know who the child is that I am supposed to talk about. I cannot define him. I feel a bit like an atheist who has been asked to talk about the best way to approach God. In the past I have been rather outspoken in rejecting the term brain injured, although I certainly don't reject the notion that some children are brain injured. I do not reject the notion that someday in the future brain injury per se may be very important to education, but I sincerely question, at this point in time, how helpful the term is to us as educators.

A few months ago there was a U. S. Office-sponsored conference at which an attempt was made to define this illusive child with too many names. Our efforts resulted in a description: The child with learning disorders is that child who possesses an educationally significant discrepancy, between his estimated potential (how nice if we knew what that was!) and his actual level of achievement, which is due to basic disorders in his learning processes, may or may not be accompanied by demonstrable CNS disfunctions, and is not secondary to generalized mental retardation, sensory deprivation (such as blindness or deafness) or severe emotional disturbance. The fact that, as far as the U. S. Office is concerned, this child has been separated from the child who is emotionally disturbed is rather interesting. I suspect it is an administrative detail because, as you well know, the child with learning disabilities is, for the U. S. Office, classified with the orthopedically handicapped, and there is a different category for the severely emotionally disturbed, with different people holding the jobs, and different numbers at the bottom of the publications, etc. This is going to have some interesting ramifications in that, at the national level, the child with learning disorders is very distinct from the emotionally disturbed child, while in many of our state programs – Illinois being one with which I am familiar – these children are classified, together with the culturally deprived, all under social maladjustment. When we add to these terms aphasic, dyslexic and perceptually handicapped, and interjacent, and dysgraphic and autistic, and on and on, I think that any confusion that we might feel about exactly who this child is, is well justified. Whoever he is, it seems that most of us represented in groups like this are

interested in one of the three major types of problems that he might show.

First, there is the very large category of visual-motor disturbances, and I suspect that those of us who use the term brain injured are probably focusing more on these visual-motor difficulties than we are on the other two categories.

The second kind of child that I think many people say has learning disabilities is the one who has disturbances on what we ITPA people would call the auditory-vocal channel, i.e., the youngster who has difficulty understanding the spoken word or expressing himself verbally (the receptive aphasic or perhaps the expressive aphasic) or who has other auditory-vocal disturbances which are not related to speech production per se or to auditory acuity problems per se.

There is a third child who may also appear in the first two categories, but not necessarily, and that is the child with reading problems -- or, as some would prefer, dyslexia. The term dyslexia always triggers one of my favorite true stories -- I'm sure it has happened to many of you. The teacher who has a child with a reading problem refers him to the school psychologist for a diagnostic work-up. Two months later he sends back the inevitably three-page, single-spaced typed report replete with all kinds of wonderfully interesting things about the child's sibling rivalry, his unresolved Oedipus complexes, and how he was traumatized by his gray-haired second-grade teacher. The teacher finally comes to that wonderful last paragraph -- summary, conclusion and recommendations -- and finds that the psychologist has concluded that the child has dyslexia. The teacher goes to the unabridged dictionary and discovers that the child has a reading problem! Well, it does happen.

At the beginning of this talk I had intended to do as Dr. Kirk recommends and tell you what I was going to say before I said it, and then say it, and then tell you what I had said. But, I'd forgotten until now. What I am going to talk about is the "who," the "what," the "when," the "where," the "why," and the "how" of special education for the child with learning problems. We have just done the "who"-is-he? To summarize, we don't know.

Next is the "what." What about this child? What is it that we as educators are trying to do for the child with special learning problems? We are trying, I think, to teach him the things that other children learn "automatically." When I arrived today, Mrs. Freidus was talking about the problems of the youngster who is about to sit down on a chair, the many things that he has to know, the things that he has to be able to do in order to match his posterior side correctly to that chair. Now, most of us learn this readily. We teach

ourselves incidentally or automatically or however you want to think about it. No one has to design a programmed set of exercises for us to learn this kind of perceptual-motor match. We learn it, but children with special learning problems do not. We have to fill in for them these kinds of skills that we picked up by crawling around the floor. You have watched a baby crawling under the coffee table. He tries to sit up. He has not learned yet the difference between how tall he is in one position as compared to how tall he is in another. We do learn these kinds of things. We are trying to teach these things to the child who has not learned them automatically or incidentally or just by being a baby. We have some evidence from the ITPA that mentally retarded children and many children with special learning problems and normal intelligence fall down, not on the sub-tests that deal with abstract concepts and meaning, but on the sub-tests that deal with rote, automatic, habitual, non-meaningful kinds of language behaviors. The standard advice to teachers of retarded children is: "Make it meaningful to the child." Well, we tested a group of retarded children and found they operate much better with meaning than they do on this automatic level. It appears that retardates have some real deficits in the same areas as those of the child with special learning problems. It is these kinds of things that we do not think about having to teach to the normal children because we do not have to teach them, and maybe this is why this field is so challenging. We are now having to devise ways to break down into little bits those behaviors that ordinarily we do not have to teach at all because the youngsters just pick them up. I think that, to repeat myself, we are trying to teach them these things that they do not learn automatically or at Mama's knee without Mama's thinking about it. We are also trying, I think, to help them learn more efficiently some of the academic skills that other children who do not have perceptual handicaps or who do not have difficulty in sound-symbol associations pick up much more readily. One of the things that strike me so clearly as I go around the country, looking at programs for the child with special learning problems, is that the curriculum is often so broad in scope. In the regular classroom you don't, in fact, have to teach children about their body and where it is in space and how to walk on a walking board.

Very briefly we'll touch upon the "when" of teaching this child. There are several points that have to be made here. Ordinarily we don't find the child with special learning problems until he has met with one or two or three years of failure in the regular school. Third grade is the classic time for these youngsters to be referred to special

education. Three years is a long time. Recently Marian Frostig was at the University of Illinois and was addressing herself to the concept of the late-blooming child. You have all heard of the "later bloomer." He just is not very mature – that is all that is wrong with him. She reportedly said she would like very much for everyone who uses the concept of "late blooming" to have to go to a factory every day for three years and be unable to perform the tasks that were expected of him, and to be subjected to ridicule from his peers, and get a little teeny paycheck, or no paycheck, or owe the boxs some money at the end of every day. We cannot afford to let these youngsters pile up the failure experiences and negative attitudes toward school that they are found to have if we wait until third grade. What else can we do? Well, it's hard when a field is just gathering momentum – not that this is a brand-new field, but this kind of interest and "go-gettum" is new, and it's hard to do everything at once. But one of the things we must do is to get hold of some techniques for finding these children earlier, focusing on preventing the school failure and perhaps preventing some of the academic problems. It may be that there are certain kinds of activities which, if given to these youngsters at age five, will make them able to learn regular reading in the regular grade with the regular teacher. While we alleviate work with the kids who have already had this problem of failure, let us also try to pick up the problems earlier next year.

It may be that in a few years the neurologist or pediatrician will be able to look at a three-year-old, do some things to him, and say, "This child is going to have problems if you educators don't fill in some of these gaps for him. Teach him specifically how to do X and Y because he won't learn it by himself." This day may be coming, and let us not, in some of our frustration about the unreliability of EEG's and the temporary effects of some drugs, etc., get out of touch with the medics, who maybe very soon will be able to help us in this early detection business. In talking about the "when" – first of all, it must be as early as possible; secondly, I think we need to learn more about critical periods as this concept applies to the development of humans. We know all kinds of things about the embryo chick in the egg who has to move his legs at a certain time because if he does not he will be crippled. We know about the critical period for salamanders learning to swim, or whatever it is that salamanders do. Let us take these concepts of critical periods and insist that some of our researchers help us apply them to children.

I vaguely recall that somebody has studied the social adaptabilities of puppies and found that the critical period during which puppies become "puppy oriented" vs. people oriented vs. isolates is

a very short period, about a two-to-three-week period. Now, in humans, if we could isolate some of the critical periods for certain types of vocal expression or perceptual motor matches – such as learning how to get your bottom on the chair – perhaps, if we could find this period, we could teach that skill during that period so much more efficiently than if we waited until the critical period had long passed or if we tried to do it too soon. One other aspect of "whenness" that we need to look at is what I see right now as a question: Is there a developmental sequence or a hierarchy in skills that we must go along with? Kephart, for example, is quite sure that there are some areas where the motor generalizations come first, and then some perceptual things, and then some abstract things. To what extent and in what particulars is this true? Is there a developmental sequence? If we have a youngster who cannot do a certain task (he cannot cross-pattern in his walking, for instance), do we really have to go back to having him crawling around the gymnasium? How important are splinter skills? Is it true that a youngster can develop in his little hierarchy like this and have a great big gap across here but zip around it and do something up here?

I ran into a mentally retarded youngster the other day – mental age four, as confirmed by many tests – who was reading at a fourth-grade level. This kind of splinter skill we need to look at more. We need to ask ourselves, "Where must I really start with this child?" If the task is calculus and he doesn't have some basic arithmetical concepts, then absolutely you'd better go back and pick these up; but if the task is throwing darts at a board, do you really need to go back to the mat and do "angels in the snow"? I don't know. This is purely an open-ended question, but I think it is one that we need to be aware of when we are evaluating what we do with children.

Next is the "where." Where should these children be educated? First, they are not a homogeneous group; perhaps some should be educated in a regular room, with a wise administrator to put the regular teacher on to what to do (and vice versa). Some of these children undoubtedly need residential facilities for a brief period of time. What I am saying is that, in planning where we educate these youngsters, let us not fall into the trap that we have fallen into with other kinds of exceptional children and put one big label on them: THESE ARE BRAIN INJURED; THEREFORE THEY HAVE TO BE IN A SPECIAL CLASS FOR BRAIN-INJURED CHILDREN WITHIN A PUBLIC SCHOOL. Maybe some do, and maybe some don't. Let us keep a whole gamut of educational facilities open to them, depending on each child's needs. In our survey courses in special education, I usually plot for the students a little continuum of

segregation-integration with regular, normal classroom situations, going from the speech-correctionist model at the integrated end of the continuum (where the child goes out for fifteen minutes three times a week or half an hour on Saturday morning) – where the child belongs in the regular grade, and that's where he is – through a resource type of program, where he is still enrolled in the regular grade but comes out for help as he needs it; to a special class, where that is his main headquarters and he goes to the regular room to whatever degree he can, up through a segregated residential facility. Let us not limit our thinking about the "where" to any one of these places just because a child has been labeled brain injured or SLD or dyslexic, or any other of our terms. There is one place to which I would like to see more of them go, and that is close to places where teachers are being trained in how to work with them. It is ludicrous to do as is done in many states, including my own, where we train teachers of children with learning disabilities with nary a child in sight – normal children, children with learning disabilities, or otherwise. How in the world this notion ever got abroad in education that we can train teachers without children escapes me, but it certainly is prevalent.

The "why" of educating these children is next. The pat answer, you know, is found in the first paragraph of every introductory textbook in education, as well as in special education - the "democratic philosophy" says that the state exists for the welfare of the individual, instead of vice versa. What does that mean? What is the role of the school? Someday, when I have lots of time, I am going to do a study in which I ask teachers in the field to tell me in plain English, or basic American, what they believe to be the role of the school in our society. I expect – along with Gallup, when he asked the people who Bill Miller, was a month after the election – that I am going to have a great large number of DK's and NR's - Don't know's and No response's. I suspect that those who have something to say will run the gamut from, "The school should do everything that nobody else wants to do any more." through, "Teaching reading, writing, and arithmetic." And then just for fun, I might ask, "Could you name some educational philosopher, whom you studied way back in Ed. 121, whose name goes with your philosophy of what the school is doing?" I bring this up because the school does in fact play quite a different role for the exceptional child than it does for the normal child. When we have a youngster on a walking board, when we are teaching a child with an IQ of 120 and a mental age of ten to tie his shoe, when we are teaching someone else how to eat, the role of the school is different in each case. How do we justify this, philosophi-

cally? Do we have to, or do we just continue to do whatever it seems needs to be done and let the professors, with their yellow notes, worry about it? I think that one way in which we let our teachers down in teacher training is that we don't encourage them to think about why they are doing what they're doing. What is your own personal philosophy of education? Could you write a one-hundred-word essay in plain English, beginning: "I believe the school should. . ."? Should we let somebody else, in liberal arts, worry about the "should's" of education? No. We should worry about them, too. That is a sermon, though, and not in my notes.

From a selfish vantage point, I think that educators are and ought to be watching with a very sharp eye what we do with the child with learning disabilities, for this reason: This child is going to teach us more about learning than all of the rats in the mazes, and all of the college sophomores on memory drums, ever did. He simply won't learn if we persist in violating principles of learning. The normal child can achieve up to grade level on his Stanford Achievement Test even if we never do anything right in the classroom. He will learn in spite of us; but the child with learning disabilities won't, and it is through him that we are going to learn about learning. This is really what teachers should know. I don't know how it is in your locale, but in mine "the psychology of learning for teachers" is a course about which, if we have a student we think is pretty sharp, we say to her "Please proficiency that course. Don't waste your time in Ed. Psych." I hope this is not true here; I hope my school is the only one in the world where it is true, but I suspect it is not. We don't teach teachers about how children learn, and partly it's because we don't know. These children with learning disabilities are the youngsters who are going to teach us and after we learn about learning, then we can get on with our business of teaching teachers about teaching. Hilgard said, at the conclusion of his outstanding book about learning, that after all this we do not know much about teaching. Let us all get a little busier and prove Hilgard wrong in the next decade. Let's make it by 1970; that seems to be a good time to shoot for. Let us learn how to teach.

Now the "how." How do we educate this child? First of all, we do it by people. We have not gotten to the point yet where we do it by machine to any substantial degree. We may. We may get machines that will do everything except be a person. You are familiar with the work of Delacato. One of his techniques, as you know, is the patterning sequence, where the youngster lies down, one adult turns his head, one pushes the arm, and a couple pull the legs, etc. We now have five happy adults talking over the youngster while he

is on the table. Suppose we made a machine that would do this better than people do it. It would be perfectly well-coordinated. Would it get the same results? Let's find out! Education is done by big people that we call "teachers" to little people that we call "pupils." Ogden Lindsley says that the proper unit of study for the educator is the bond between the big person called the "teacher" and the little person called the "child." Let me say it again. It baffles me how we ever thought we could train teachers in any setting other than with children. Right now I am teaching a course called Tests and Measurements of Exceptional Children. We have filing cabinets all over our classroom. The Dean says they are not very neat and tidy. They are not. They're very well-used, but nary a child, not even child no. 1, is anywhere to be observed in the course. This is not ideal. We do some things, to the big person to be called a "teacher," that we call "teacher training." This, too, perhaps is not perfectly ideal yet – almost ideal, I am sure, but not quite. Dr. Lindsley says again, and I plagiarize freely, that teachers need to know four things: (1) How to observe behavior – not how to react to it, not why did he do that, not why doesn't he do his lesson, not he used to work for Mrs. So-and-So, No! How to observe. Next (2), how to record what he does. I am afraid that there are still a couple of psychologists around who could learn something about this too. I read a report of a youngster, and it said that rapport was established easily. What is this? If the child came into the room and smiled, sat down at the table, and said, "Can we start to play the games now?" – this I could understand. This is behavior. Rapport is not. People who write curriculum guides amaze me too. They say we should teach "social adjustment." I don't know what this is. If they want me to teach Johnny to say "Good morning, Teacher," this I can do. I can instill this behavior in him. If they want me to teach him not to kick every child that walks down the aisle, that behavior I can extinguish. I can teach all kinds of behaviors, but I don't know how to establish rapport, and I don't know how to teach "social adjustment." Let's get down to behavior. Let's get rid of graduate-student jargonese.

Third (3), you learn how to modify behavior. This is the essence of education. This is learning. Learning is that behavior modification which occurs and is not due to fatigue, maturation, or something else (I have forgotten my Ed. Psych.). Do you know how to modify behavior? If you have a student who is highly "compulsive" – meaning that when he comes into the room, he has to straighten every desk before he sits down – do you know how to change his behavior so that when he comes into the room he will no longer straighten every desk? You have a child who never finishes his arith-

metic until after school. Do you know how to modify that behavior so that he finishes his arithmetic during arithmetic period?

The fourth step is so important, and that is (4), we need to know how to evaluate the three things that have just gone on. This is the continual interaction – the feedback: What did I do? How did it work? How can I do it differently? We get some kind of built-in system for comparing what happens in Situation X with what has happened before. The built-in comparator is our own set of standards or norms for evaluating how successful something was. Do you know, when you have taught sight vocabulary for ten minutes, whether the group or the child responded well or poorly? You psychologists who are occasionally called in to do a psychological evaluation of a blind child, have you studied enough blind children? Have you made enough predictions: this one will develop speech; this one will be a good traveler; this one will achieve well academically? Have you followed those hunches up enough for you to have a built-in comparator? Have you gotten feedback, so that you know when you are right and when you are wrong? The second-grade child that you thought had been remediated and was ready to go into the regular room now and breeze through a regular school – did he make it? Let's do more follow-up on a long-term basis, as well as immediate evaluation, not just at the end of the day, not just at the end of the week's lesson plans, but at the end of our contact with the child. We must continually evaluate, always ask ourselves, "Did it work? Was that hunch right? Was it efficient?"

Now let's quickly move on for a moment to the process we call diagnostic teaching. When a child is brought to our attention as one who is having learning problems, the first stage is a question – and always questions, questions: Does he really have a learning problem, or is Mama concerned because he is a boy and is not quite as verbal as his sister was at that stage? Is it really a problem? Is he mentally retarded across the board but we do not know why; or is he operating up to what we think he should be able to do, granted that he is retarded? To find out if he really has a problem, we have to establish a discrepancy between how well we think he "ought" to be able to achieve and how well he is actually achieving. This "ought" to achieve" is a tricky business. Someday maybe we will be able to count the brain cells and see what shape they are in and come up with a more definite "ought," but right now it is usually based on some combination of mental age and chronological age.

Having determined that a significant discrepancy exists, we move to the second stage, which is describing the problem behaviorally. Not, "He doesn't read very well" but, "He has no word-attack skills;

he does a lot of repeating; he rocks." You know what "rocking" is in reading. When the youngster comes to an unfamiliar word, he backs up and keeps going over the familiar place in front of it, just as you do when trying to get your car out of the snow. Or, "He uses first-letter phonics only." Or, "He seems to be going by the shape of the word when he tries to read." This is a description of how he reads. It is not enough to say he is not reading very well. To step over into the field of psychology for just a minute, let's take a concept like sibling rivalry. Rather than just saying that he has a large dose of this, let's spell it out: "He fights continually with his brother; he kicks him; he bites him; he runs to Mother and tells." Spell out the behavior so that we can eliminate some of the communication problems that I am afraid still remain between and among some of the various disciplines. As long as we talk about behavior, we all know pretty well what that is.

Step no. 3 is looking for what, a few years ago, we called etiological correlates, trying to find out why the problem exists – but now I am not so sure about etiology. I am not so sure about the whole notion of cause-and-effect. There are many reasons why I am not sure. One is that I have been reading too much Zen Buddhism. But there are others. Take a very common observation. We know that excessive eye fixations, as in reading and slow reading, go together. One can very legitimately argue that a child reads slowly because he has too many eye fixations; you can argue just as cogently the other way. Both reasons are equally logical. You are also familiar with the old problem of which comes first, emotional disturbance or reading problems. Certainly, either one, if we could define them adequately in the first place, could cause the other – but let us get away from this "which comes first," because it doesn't matter. He has both. He is a slow reader with too many eye fixations; he is a highly aggressive poor reader. We can cut into the circle at either place. What we as educators need to do is to focus on the present and the future. What can I do today so that he will have fewer problems tomorrow? There are some researchers who, for academic reasons, want to look backwards. This is a harmless enough pursuit, but looking backward does not do perhaps as much for the child at this stage of our knowledge as looking forward and asking, granting the problem, "What can I do now?" Maybe someday the etiologically-oriented people will have more information for us. Right now, I think, it is more efficient to look forward. We look at the correlates in the sense of cognitive, intellectual kinds of things that go with this child's problems. The problem is, he cannot put his coat on; he cannot set the table; he cannot eat right; he cannot get in and out of a car; he cannot button

his own coat. We have described it; now what goes with it? It is at this point that we look to the more formal part of diagnosis as such and use tests and structured observation situations. If the child's problem is in this area of not being able to sit on a chair, and not being able to put on his own coat, and going down steps one at a time at the age of ten, this should already tell us that we need to be looking into the visual-motor area. If his problem is one that the teacher describes by saying, "He never understands directions: I always have to go back to him and show him how to do it. He raises his hand to answer a question, and nothing comes out. I know he knows it, but he just can't say it," then that should tell us that we need to be looking at the auditory-vocal area.

Perhaps the problem is in reading. Children can and do have just plain reading problems. The last estimate I read was frightening: 30 per cent of the children in our public schools are retarded below grade level in reading. Thirty per cent – that is a lot.

If the only referral information that you get, as a psychologist, about one of these children is that he is not doing well in school, the ITPA is probably one of the better tests to tell you where to start your diagnostic search. The ITPA has sub-tests of auditory understanding, visual understanding, motor expression, and vocal expression; some memory tests; and a couple of tests called association tests, but we really don't know what they are. The individual sub-tests in all of these areas are used to plot a profile that helps you isolate his area of disability, and it in turn tells you that then you need to do further testing à la Kephart or à la Frostig, or à la De Hirsch, or somebody else.

After you compile all of this information in which you have hopefully zeroed in on his deficit, you can now form a diagnostic hypothesis, which is the last stage of the diagnostic half of diagnostic teaching. Your diagnostic hypothesis might be that his basic deficiency within the reading problem is an inability to sound blend. I like to use this example because it is so tragic when a youngster sits in a classroom, being unable to sound blend, and the teacher does not teach him. You can teach most children to sound blend in about five minutes, and when I see a fifth-grader who still cannot sound blend because nobody knew how to teach him, it just makes me want to weep. If a child cannot sound blend, little good it does him to say "mm" or "atch." He can say it all day long, and if he lacks this psychological thing called auditory fusion or sound-blending ability, he can say it all through the fifth grade, and it will never become "match" for him. Of course, he won't be able to use phonics.

(A member of the audience asked for a demonstration of the teaching of sound blending.)

How? OK! I wish I had a real live child who could not sound blend. First of all, choose your starting point carefully. Take a word in which the first sound can be prolonged easily, such as "/mmm/." Don't take "/p/" or "/t/", for example. I am going to say a word in parts, and you listen to it and see if you can tell me what this word is. "/M----i/." What is it? "Me" good. That's fine. Now listen again. "Mm, ee." What was it that time. "Mm-ee, me." Right. Now I'm going to say the same word again. You listen. "Mm, ee." What was it? "Me." Good. Now you do it. All the time we're getting stimulus and response going in both directions. Stay, first of all, with a very simple two-sound word. You have to go in both directions. Don't ever let him fail. If you have to say the word right out, "me," before he gets it, that's all right. Don't let him fail. If you see that the light has not gone on, shorten the interval. Give it to him. He is going to come out with the right response once you have smiled hearty approval. Then lengthen the interval a little bit. It is the same word. Sure, he knows it, but he has not failed. He said "me," and maybe he has gotten the idea that you can see it in parts; and with a blackboard, if he knows his letters, it's "mm, ee"; and each time you can add the visual cue of longer space between the two, or just use your hands, "mm, ee, mm, eee." Get the interval to about one-half second. There is no point, really, in taking it beyond that. Then, before he gets fixated on "me," go to another two-sound word. Again, where you can, prolong it. "Sh – oo" – and you probably have to shorten it up: "ssh-ooo." What is that? Good. "Shoe." Now I am going to try to trick you. What is this one? "Mm – ee." So, in short, it is the process of narrowing the interval until he gets it, broadening it out. Have him do it, both ways – with the short interval and with the long interval. Really hit with the two sounds until he can handle that; then you can move up to three sounds and delightful games. Every kindergarten teacher in the country should play this little game. Listen, I am going to say something in the room. You tell me what it is. "Ch-air. Ch-air. Chair." Pretty soon you can be doing this with a two-second interval and the children will be getting it.

Much of what we do in the field of learning disability is just this simple when we get into the frame of mind which tells us (a) to look at behavior, and (b) to break the behavior up into little bitty parts and then teach them systematically.

(End of sound-blending demonstration.)

We have now concluded the top half of our diagnostic-teaching triangle with a diagnostic hypothesis which is very specific: the

problem is sound blending; or that he doesn't know where his bottom is in space; or that he doesn't know that he is taller when he is vertical than he is when he is horizontal; or that he does not have the concept of corner, or whatever it may be. Spell out these specific behaviors that need to be taught; then you branch down into the actual teaching triangle. If your diagnostic hypothesis is accurate, and if it is behavioral, you already have your first week's lesson plans. You teach him to do those things that he cannot do. You teach him sound blending. You teach him what a square is or what a corner is. You might do it by crawling around the room, and then the corner is where the walls meet, and he does it with his own hands. Then your teaching focus becomes broader. After you have taught sound blending, you don't stop just there; you go into phonics. After you go into the concept of corner, you don't stop there; you teach up and down, front and back, and in and out – whatever it is that his psychological deficits may be. You keep folding this triangle back over on itself so that teaching becomes diagnosis and diagnosis becomes teaching.

Let's now look at some general trends in education, especially related to learning disabilities. One of the current trends in learning disorders is toward the creation of group screening tests for learning disabilities. About four different places are right now developing a group screening test for five-year-olds to try to pick three youngsters up before they have had their two and three years of failure. Interestingly, one item which keeps occurring is auditory memory. Some form of short-term auditory memory seems to be a pretty good index of potential learning problems. Some of the standard visual-motor items are usually included in these tests, although I am not sure how well they are holding up.

Another trend that relates very much to this is an increased focus on preventive teaching rather than just working on the remediation. We are taking a new, long, hard look at reading, in particular. We have done an abominable job throughout the country with the teaching of reading. We have too many children who have been in too many classrooms, exposed to too much reading instruction that has not taken, and I think there is something radically wrong about the way we teach reading. I am going to put my head on the block in Missouri tomorrow, at just about this time, and if I have a head left after that, I'll write an article on how we ought to do it, and it has to do with learning disabilities.

Another trend I see pleases me a great deal: the beginnings of cooperation and communication among some disciplines that just

five years ago were sitting back, each in its own little bailiwick, being more or less sure that whatever constructive work could be done could be done by its discipline. I see now much more intercommunication — educators reaching out to psychologists and saying, "Please, we know you've got something. Make it a little more practical for us," and psychologists in turn saying to educators, "Can't you shape up a little bit? Don't make us write as if we were writing for second-graders. Try to learn a little bit of our terminology." Yesterday I was in Houston, Texas, on a panel of ophthalmologists, and I occupied a place between amblyiopia ex anopsia and diabetic retinopathy, and this is good. I didn't understand a lot of what they said, and perhaps vice versa, but there we were. That's the important thing. Let's do all we can to keep these channels open, and to open them up more and more.

One area that I don't see opening up, and that I would like to see do just that, is communication between teachers and researchers. If I may speak for just a minute as a researcher, this hurts me because I know that a lot of the blame is on us. Much of our research has not been fit for much more than dust gathering, but we are waking up. We really are. We are trying to go into the schools and do research that is meaningful. We have put our rats and our college sophomores on the shelves. We are doing more in evaluation of research at conferences like this, actual evaluation of in-service training. Suppose we have Message X that we think is more important for you because it is useful to you. We are starting to ask you, "How can we get this across most effectively?" So, if you have shut us out because we were fit only for the library and dust gathering, try us again. It is slow but it is coming. I had two very disheartening experiences, within the last few months, of attempting to set up research projects in public schools and finding tremendous cooperation up until the point where we said, "Miss Smith, you are an experimental teacher and you will have Method X or Child Y." Everything up to that point had gone beautifully, and then, suddenly: "No, I won't do it." This has prompted me to want to do a study on what is it about the way we researchers have approached you that has made you turn us off. We are not evaluating you. We are evaluating methods or ideas that some theoretician has offered. We have got to find some way to get it across to you that we are not bad. We are not cutting your salary; if anything, we will boost it. This is an area we are really in need of work on. Teachers and researchers should learn to talk to each other, and both sides are going to have to give a little bit, just as both sides are giving in this teacher-psychologist thing.

Also, I am more and more struck by the fact that emotional dis-

turbance, cultural deprivation, and learning disabilities have much in common: much in the way of curriculum development, much in the way of theory, much in the way of personnel. It is getting to the point so now that when some of us who think of ourselves as being in learning disabilities get a long-distance phone call, the probability that it will have to do with cultural deprivation or emotional disturbances is just as high as it is that it will be about learning disability. So keep your eyes and ears open for developments in both of those fields. There are people very actively straddling both the emotional-disturbance and the learning-disabilities fields, pointing out that both groups of children have in common some deprivation and sensory-motor problems. Culturally deprived children, by definition, have been deprived of some experiences that appear to lay the groundwork for later cognitive development. These three areas are going to get all mixed up, and well they should.

Just a few words about the school psychologist. Teachers are getting more vociferous about saying, "We want some help." When this is not forthcoming, they are no longer saying, "Oh, I guess I just don't understand this." They are saying, "Let's get somebody in here that can give us some help." There is an urgent need for school psychologists who can function as educational diagnosticians, who are at home in the classroom, who can do in-service training, who can give a teacher the kind of information that she needs to teach a child more effectively. But there are few places training psychologists in this way. The role of the person now functioning as a school psychologist must change, and his training is going to have to change. Maybe the way to do this – again we use terms to ease things – maybe we will have to start a new program, for people called educational psychological diagnosticians. All over the country school psychologists who enjoy functioning in the school are saying, "I wasn't trained for this. I don't know how to do this. The teachers come to me and I want to help them, but I don't know how." Things are moving, regarding the psychologist in the school, and I think they are constructive, good things. Whether it creates a new breed of psychologists or a new breed of educator, it matters not. Let's get some people that can perform this function. Let them call themselves anything they want. We need them so badly that we will give them freedom of title.

Something else I see going on is "faddism." I know this is always going on, but when have we so rapidly picked up fads as we do now? I got a call from a school superintendent of a very well-to-do Chicago suburb who, it seems, woke up one morning and discovered 160 children crawling around his public school gymnasium. He said,

"Help!" In a community with a school population of about 1,200, did 160 children really need this program? But it was prestigeful and it was free baby-sitting. The children loved it. They had never been so eager to go to school. So here he was, with 160 children and 320 parents, and he wanted to know what to do. We do pick up fads very, very rapidly.

Another thing I see going on is this: I think we are asking better questions. In the field of mental retardation, from about 1920 to 1930, we asked the wrong question about education of the retarded. We asked, "Which is better, a special class or a regular room?" Now we know that this is the wrong question. It should be, "Which is better for which child at what point in time?" And a second question is, "What is going on in that special class, and what is going on in that regular room?" Gallagher has been finding this with the gifted. As he puts it, it is not how you pile them up – in other words, homogeneous versus heterogeneous grouping, or acceleration versus enrichment – it is not how you pile them up, or what label you put on them; it is what you do with them in the piles that counts. This is happening in learning disabilities. Kirk and I have been asking a wrong question. We have been asking, "Is it better to teach to the strengths or to the weaknesses?" We should have asked, "For which child do we teach to the strengths, and for which to the weaknesses, and at what point in time?" We recently did a little study on reading with first-graders. We took a whole school system and we went in to answer this wrong question. We gave the ITPA test to every kindergartner. We divided all the children into two groups – high auditory and high visual. Granted, most of them were really sort of in the middle, but we still put them into these two groups. Some auditory subjects received an auditory approach to reading, and some a visual approach. The same was done with the visual subjects – some getting an auditory and some a visual approach – so we had every possible combination of teaching to the strengths and teaching to the weaknesses, and in addition we had four control groups. I started the data analysis in terms of the question "Do the strength-to-strength classes do better, or the weaknesses-to-strengths classes?" It turned out not to be that way at all. The auditory subjects did better when taught to their strengths, and the visual did better when taught to their weaknesses. So, again, we were asking the wrong question. I hope we are getting a little more sophisticated. We are looking more at individual children; we are looking at what point in time and at what it is that we are really going to do. We've learned that putting a child in a special class does not tell us anything about what happens

between the big person called "teacher" and the little person. And it is what happens between them that is the heart and soul of education.

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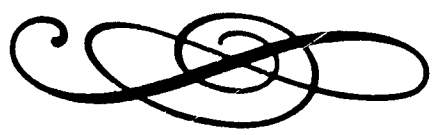
(Mr. Ruvin) Your talk has been very pleasant as an after-dinner mint, Dr. Pateman. We have a little time for some questions, not too many, so if anyone wants to ask questions. . . . But before we do, let me just remind you that there will be a young lady sitting in the back, at a table, and those of you who want to buy the proceedings of this conference, give her your evaluation form with your name on the back, and give her a dollar. That helps.

(Question) Who can administer the ITPA (Illinois Test of Psycholinguistic Abilities), and at what level should it be administered?

(Answer) The test, which is presently in an experimental edition, was originally intended for limited distribution to researchers only. At the present time we are recommending that it be given only by people trained in individual testing. Jim McCarthy, who is one of the test's authors, says that his experience in teaching people who have not had individual testing to give it has been very poor, and he recommends only people with Binet or WISC backgrounds. My experience has been quite different. Some of the best testers that I have are those that I have trained in the absence of previous background. I would say that the crucial thing, if you intend to learn the experimental edition of ITPA, is that you get in touch with someone who knows the test from the bottom up. Namely, write to us, and we will put you in touch with somebody who can train you. It does require fifteen to fifty practice tests. It can be given to children within the mental age range of two to nine, although it shares with all tests unreliabilities at both extreme ends of the norms. It is quite useful with retardates. We have one study with adult retardates in which we found that it does pick up disability areas. For children with learning disabilities, it is quite useful because, even though the child may be twelve and he is above norms in seven out of nine areas, you can still pick up areas of weakness. It is useful for measuring in any of the nine areas where the child is likely to fall below the eight-year level. We are currently extending the norms upward to age twelve.

(Question) How long does it take to administer?

(Answer) We have done several studies on this, and contrary to what people think, when they first start giving it, the mean administration time in the four-to-seven-year age range is about thirty-two minutes for an experienced examiner. Most people find that when they first start giving their practice test, it runs an hour, and some people get discouraged at this point. It is only because they are not familiar with the mechanics of it. You will quickly drop down to forty-five minutes, and after your five-hundredth ITPA, I guarantee that you can do it in thirty-two minutes, on the average.



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