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EARLY IDENTIFICATION OF YOUNG CHILDREN
WITH LEARNING PROBLEMS

by
Marsha Gullickson

A RESEARCH PAPER
SUBMITTED IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE DEGREE OF
MASTER OF ARTS IN EDUCATION
(EDUCATION OF LEARNING DISABLED CHILDREN)
AT THE CARDINAL STRITCH COLLEGE

Milwaukee, Wisconsin
1978
EARLY IDENTIFICATION OF YOUNG CHILDREN WITH LEARNING PROBLEMS

Early identification of children with learning problems has received present support from medical, psychological and educational professions, as well as parents, when applied to children with physical, sensory and gross developmental problems. Yet, a persistent dilemma confronts those involved in early identification and intervention programming for infants, toddlers and pre-schoolers in the selection, modification and use of instruments and approaches which will result in programs that are effective, efficient and accountable in terms of long term reliability and results.

Frostig has said, "Theories and practices in special education must be constantly modified as new research findings accumulate in various branches of education, psychology, sociology and other pertinent, basic and applied sciences." She calls for professional growth in the advancement of our practices in viewing developments in the field of dealing with children. A caution, however, also seems warranted.

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to be hidden in her words—a caution to be knowledgeable in the interpretation and acceptance of new research in the field of education, as well as the full scale acceptance of new developments. This call for knowledge and warning for caution seems especially relevant in the area of early identification of young children with learning problems.

**STATEMENT OF PURPOSE**

The purpose of this paper was (1) to review the research dealing with the "development and characteristics of the at-risk child" (preschool), (2) to survey a listing of commercially available scales and instruments which are available for purchase by institutions and/or organizations seeking to implement pre-school screening programs, and (3) to survey twenty-eight school systems in the Milwaukee and surrounding areas as to the design and implementation of pre-school screening programs.

**DEFINITIONS OF TERMS**

**Brain-injured child**—One who has suffered brain damage before, during or after birth which damage may interfere with normal learning and/or development.

**Cognitive**—The faculty of knowing, of becoming aware of objects of thought or perception, including understanding and reasoning.

**Electroencephalogram (EEG)**—A graph of the electrical activity of various parts of the cerebral cortex of the brain.

**Hyperactivity**—Excessive activity of energy; overactivity or excessive motor movement, sometimes called hyperkinesis; describes an individual who seems to always be in motion; often associated with perceptual difficulties, mixed dominance, concentration problems, moodiness, temper tantrums, imbalance and unpredictability.
**Learning Disability**—A disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, which disorder may manifest itself in imperfect ability to listen, think, speak, read, write, spell, or do mathematical calculations. Such disorders include such conditions as perceptual handicaps, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia, but such a term does not include children who have learning problems which are primarily the result of visual, hearing, or motor handicaps, or mental retardation, of emotional disturbance, or of environmental disadvantage.

**Minimal Brain Dysfunction**—A mild neurological abnormality causing various developmental learning disorders in a child with normal or near normal intelligence; characterized by "soft" neurological signs; also called mild or minimal cerebral dysfunction.

**Prenatal**—Pertaining to the time during pregnancy before birth.

**Pre-school**—Pertaining to that age group including from 0 to 59 months, or to those children who have not entered a formal, traditional educational program as defined by Kindergarten entrance.

**Postnatal**—Pertaining to the time after birth.

**Screening**—The process of examining children through organized programs to identify children with possible special or exceptional education needs.

**SUMMARY**

Development and characteristics of the "at-risk child" were discussed, and screening instruments commonly used with the pre-school child were listed and reviewed as to content and usability. A compilation of information obtained in a survey of twenty-eight Milwaukee and surrounding area school systems was presented. Terms including--the brain-injured child, cognitive, electroencephalogram, hyperactivity, learning disability, minimal brain dysfunction, prenatal, pre-school, postnatal, and screening were defined.
CHAPTER I

DEVELOPMENT AND CHARACTERISTICS
OF THE "AT-RISK CHILD"

The importance of early childhood identification and intervention has been demonstrated by research. Extensive examinations have been made of children in the post-natal stages of development in regard to developmental characteristics, behaviors, and later learning abilities and difficulties. From birth on, intellectual development takes place, with the brain itself gaining weight at a rate of one to two milligrams per minute. Eighty percent of the size of an adult brain is reached within the first thirty-six months of life. As the brain is not capable of later regenerating tissue that is damaged or perhaps not even formed during the first three years, normal development in this growth period, and especially in the first six months, is crucial. Scrimshaw suggests, "If, indeed, nutritional deprivation and specific learning disabilities are coupled in some children, this is one critical point where problems may arise."

Conditions, especially those found in lower socioeconomic strata, (particular complications of pregnancy and low birth weight, coupled with birth trauma and/or injury) may indicate degrees of damage sufficient

to disorganize behavioral development, and may lower thresholds to stress, resulting in all types of behavioral and learning disabilities. Cerebral dysfunction is the label given to a spectrum of disorders and disabilities of intellectual development, neuromotor integrity, motor development and/or maturational status which may appear alone or in combination as end results of reproductive casualty, genetic defect, or post-natal insult. As age and maturation continue, a variety of learning and behavioral disabilities may appear as manifestations of cerebral dysfunction.  

Considerable attention has been drawn to the significance of birth complications for later learning development. In a study by Knobloch and Pasamanick, 1,000 normal and abnormal children at age forty weeks were examined. These same children were again examined at the age of three years. A high correlation was found between early neurological status and later intellectual potential. Problems which are found in the early detection of learning disabilities seem similar to those in ascribing significance to physical and neurological correlates of school age children.  

"In development all children are generally more alike than different ..." In evaluating possible difficulties which may be

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indicative of learning disabilities in the very young child, we must be
aware of the normal developmental patterns of the normal child in order to
recognize the abnormal development of an "at risk" infant or young child.
The development of a child may be organized in the following conceptual
schema of cognitive processes associated with learning:

Sensory functions--including vision and audition.

Sensory-motor functions--including gross activities such as
head and body control, sitting, walking, running and throwing
as well as fine motor activities such as coloring with lines,
cutting, skipping, body localization and imitation of movements.

Perceptual functions--the visual would include sequencing, memory,
discrimination, figure-ground and form constancy. The auditory
would include sequencing, discrimination, auditory-visual trans-
position and memory. Perceptual motor functions would include
balance and rhythm, laterality, directionality (right-left),
spatial and temporal orientation.

Conceptual functions--include comprehension, symbolization, causal
reasoning, classification, part-whole relationships, number
concepts and inferential thinking.

Language--a conceptual function, including articulation, sound-
blending, fluency, grammar and vocabulary.  

All developmental patterns, both in pre-natal and post-natal
life evolve in a predictable pattern and comparable manner, and adequate
development diagnosis requires examination of the different aspects
of growth. Five major fields of behavior, each representing a different
aspect of growth require examination.

Adaptive behavior is the forerunner of what will later be
judged as "intelligence." It deals with organization of stimuli, per-
ception of relationships, the development of part-whole relations, both
in taking them apart and putting them together into a meaningful
fashion. This area ranges from finer sensorimotor adjustments to

Mary E. Walsh, Felicisima C. Serafica and Roger Bibace,
"Referral of the Child with Learning Problems: Bridging a Commun-
objects and situations, to hand-eye coordination, to the using of motor
equipment properly in solving new and practical problems, to adjusting
to new problem situations, to displaying initiative and resourcefulness
within the life situation of the infant.  

Gross motor behavior, in addition to the characteristics listed
earlier, includes postural reactions, head balancing, and the actions
of sitting, standing, creeping and walking. Fine motor behavior
includes the use of the hands and fingers in the act of taking hold,
seizing or grasping an object. Research shows that overemphasis on
motor development in the past has lead to inaccuracies in infant ev-
valuations. Motor behavior is an integral part of the assessment of
neuromotor integrity, but it is NOT the only basis for predicting
intellectual potential. However, deviations in motor patterns are the
most prominent feature of neurologic impairment in early life. Some
disturbances commonly associated with the disturbances relating to symptoms
of "cerebral palsy" are the same ones found in those infants and young
children who display lesser degrees of impairment. The earliest ob-
servable actions generally deal with the integration of the basic veg-
etative functions--in which one may see disturbances in sucking, swallow-
ing and respiration. As the child becomes older, control of the eyes
and head, control of the legs, lower trunk and fingers and distal body
parts develop. At the age of 52 weeks or more, delay in the acquisition
of independent walking may be noted, and may be poorly coordinated and
wide-based when achieved. Finger use and release and placement movements
are imprecise and inaccurate, and awkwardness may persist with cubes,

6Gesell, Developmental Diagnosis, 4-5.
7Ibid., p. 5.
small manipulative objects, pellets, crayons and books. As complexities of tasks increase at two and three years of age, perceptual motor problems may become apparent.  

Gross motor difficulties may often show themselves by absence of movement patterns or awkward productions of these movements. Problems may be noted in skipping, jumping, and hopping, and a child may demonstrate clumsiness and insecurity when going up and down stairs. When most children are using alternate foot patterns in this activity, the child with motor difficulties may lead with one foot and then bring the other foot to the same tread, or may also use a railing, or show insecurity in this task. It is also difficult for children with gross motor problems to initiate movement patterns without demonstration. A request to "lift the leg and put it down" may require demonstration, and the child is likely to omit patterns after one or two repetitions, showing perseveration and inability to change from one action pattern to another. Production of gross motor patterns are likely to be stiff and awkward, often accompanied by falling, stumbling or excuses for the quality of production. Static balance may be more easily maintained than dynamic balance. Difficulty or failure may be shown in the ability to reverse movement patterns, as well as in the ability to walk, hop, jump or skip backwards or sideways.

Motor problems may also be observable within the scope of the child's day. Various degrees of difficulty, frustration and even failure may be experienced by the child with motor difficulties in such activities as buttoning, zipping, tying bows and knots, managing eating utensils, tricycles and bicycles, swings, teeter-totters, and other manipulative
and recreational activities and equipment. At times, the child may not have the coordination to lift both feet from the ground at once, and may feel excluded from cooperative play activities. If attempts to play are made, he may get into trouble with or receive ridicule from peers.9

Children with perceptual motor problems have a diminished ability to perceive the world around them, and to respond with purposeful adaptive responses. They may choose to ignore, or "shut out" those stimuli which are more than they can handle, or may also react with gross, poorly organized motor response. These children may tend to have a lowered tolerance to frustration, and may display impaired impulse control.10

Language development is a fourth major aspect which assumes patterns which may furnish clues to the organization of the child's central nervous system. The term is used to define all forms of communication which may be seen or heard, including facial expression, a movement of the body or limbs as a means of expression, body position movements, vocalizations, words, phrases or sentences. It also includes the imitation of and understanding of the communications of others. Understandable, intelligent speech requires readiness of sensorimotor and cortical structure and social learning. A pattern of speech emerges, built on the building blocks of preverbal phases preceeding verbal phases, inarticulate vocalizations and vocal signs preparing for words, and social


learning and reinforcement. Developmental studies have shown that a child acquires a basic knowledge of rules underlying speech and language during the preschool years, and authorities place the optimal language acquisition time at three to six years. At about two years of age, language behavior is used as the criterion of intellectual adequacy. Before judging lack of language development to be a sign of mental deficiency, the possibility of a hearing defect should be ruled out. In some children, speech production may be delayed, and yet language comprehension and communication through gesture and pantomime are age-appropriate. Provided a child possesses a minimal prerequisite of normal intellectual potential, social determination and expectations play a great role in language development. A rich language environment will generally enhance both reception and output, and may aide the development and expression of other cognitive abilities. A more limited language environment may call for a developmental lag, but must be taken into account during examination. However, as earlier stated that accelerated motor development is not necessarily a significant indicator of intellectual capacity, if language development is normal or accelerated, a diagnosis of mental deficiency may be ruled out.

11 Gesell, Developmental Diagnosis, p. 5.
14 Gesell, Developmental Diagnosis, p. 138.
Personal-social behavior makes up the child's reactions to his social environment in which he lives. Social expectations such as bowel and bladder control are dependent both on the child's neuro-motor maturity and cultural expectations. Independence skills and perception of social expectations are also combinations of ability and intelligence, in conjunction with the observable social requirements. In some social situations or cultural settings, passive, dependent behavior is approved and rewarded, where in others, verbal, more aggressive actions are more highly favored.

"Children with learning disabilities present a profile of delayed and differential development in basic skill areas. They are misunderstood in school because they do not display the more obvious factors in underachievement--sensory and physical handicaps, mental retardation and environmental and educational deprivation. We would be terribly negligent if we did not attend to the unfolding of this pattern early. Children with learning disabilities are easily accused of being "slow, naughty, and inattentive" at an early age."

As the terms "learning disabled" and "minimal brain dysfunction" are often used interchangeably within the educational community, three aspects of behavior considered to be classic reactions in children with minimal dysfunction may be stated as attention problems, hyperactivity and emotional instability. When integration of the processes is impaired, attention may be described as "variable, fleeting, distractible and capricious, or alternatively, as perseverative and unduly fixated."

These interferences of attention usually appear in conjunction with motor, sensory, intellectual or convulsive displays, except in the case of environmental causes.\(^{17}\)

\(^{15}\) Ibid., p. 5.


\(^{17}\) Gesell, Developmental Diagnosis, p. 239.
Hyperactivity is a word which is much overused, especially by parents. The normal motor activity of a young child is often bothersome to parents because of high expectations for control and from lack of appropriate play opportunities available to the child. Certain behavior characterizes this condition, which also may signal additional learning problems:

---Restlessness---the mother of a young child may feel that she can never take her eyes off of him. In a nursery school, the child seems to be constantly in motion unless given direct, one to one attention.

---Short attention span and notable distractibility---the child may rush from one activity to the next, and still seem at a loss as to know what to do. He may return to an activity upon request, but quickly forget and go back to previous behavior.

---Demands constant attention---the child may monopolize all conversations and activities, and seems emotionally unresponsive and un-demonstrative.

---Shows weaker than average impulse control---may exhibit temper tantrums, displays poor judgement in social situations, is hard for him to wait for a turn, and parents may complain that the child is uncontrollable.

---May show difficulties in fine motor coordination or may display problems of balance. About 50% of the children considered to be "hyperactive" display these difficulties.

---May exhibit interpersonal problems including resistance to change and social demands, excessive independence, and may show dominance towards the children that he plays with to the point that the other children do not want to play with the child.

---May exhibit emotional problems.
Although most young children display these behaviors at some time, and most seem to "outgrow" them, the point that sets the truly hyperactive child apart is the intensity and consistency of the behavior.\(^{18}\)

In suspected cases of emotional disturbance, concern should arise when behaviors are too extreme, happen too often and persist too long. A fourth consideration should be noted—whether the number of symptoms manifested by the child at any one period is excessive.\(^{19}\)

Many times the parent is the first to notice that there may be problems in development, intelligence, attention or behavior. If the child is very young, concerns may be expressed to the physician, and if the child is of nursery school age, the parent may raise a problem through tentative questioning, that in fact the nursery school teacher or observer may have noted.

Instead of the child being viewed as the product of parental mismanagement and educational failure, the following outlook may be conveyed in speaking to the parent:

--The problems that the child exhibits is generally caused by factors quite often beyond the scope of normal child-rearing practices, and is not something that the parent should feel guilty about or shameful of.

--The learning disabled child does not act the way he does because he "wants to." He usually behaves and functions because of forces beyond his ability to comprehend or control.

--The learning disabled child's condition may be remediated with treatment and specialized instruction.


\(^{19}\)Ibid., p. 253.
The learning disabled child, properly diagnosed and categorized, does have the potential for normal development and successful school achievement if given proper educational attention. This student is not mentally retarded with regards to learning potential or social adaptability.

The remediation of learning disabled children is desirable and justifiable from both a human interest and "dollars and cents" point of view, and therefore can be justified within the scope of the public school systems, and supported by public tax dollars.

The physician, as the primary screening agent, is most involved with the maturational levels and physical well being of an infant or child. It is not his task to obtain a measure of intelligence, but rather must deal with those elements dealing with central nervous system function. A statement of observations concerning behaviors, the presence of neuromotor or sensory deficits and symptoms of treatable developmental disorders is part of the assessment of the total child. A differential diagnosis must be the physician's first and foremost duty through a developmental neurologic assessment. Since the MBD (minimal brain dysfunction) syndrome has not received general acceptance or acknowledgement by most members of the medical community, many of the more technical aspects of this syndrome may have been largely ignored.

Peters et. al., in their handbook for physicians for use in screening...

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21 Gesell, Developmental Diagnosis, p. 17.

22 Ibid., p. 129.
for MBD, stress the assessment of the subject's language functioning, as a part of assessing development in the "non-physical" areas of the total evaluation. These members of the medical profession, who, until recently, have been relatively unfamiliar, on the whole, with in depth psychoeducational testing procedures, are not so much concerned with this aspect, but are now becoming more knowledgeable in the area of developmental pediatrics. As a point in training, England has added an additional year of interdisciplinary training in addition to the traditional training program. This trend is also becoming more widely accepted throughout the United States, with more than thirty university affiliated institutions offering postdoctoral pediatric fellowships in the comprehensive interdisciplinary "Developmental Learning Disorder" evaluation and treatment programs.  

Within the assessment by the physician, the screening may be looked at as an "opportunity to intervene and not to classify and categorize a child." The physician may use his power and authority to take an adequate history, perform a physical examination and to obtain other components of an assessment, making sure that he doesn't depend upon information from one parent, one observer, or one setting. In exercising his role in the management of learning disabilities, the physician should explore the possibilities that unrecognized sensory deficits and medical conditions could cause or contribute to the learning disorder, and that multiple problems may contribute to the whole picture of the disability. After gaining the confidence of the


child, family and school, the physician may be in a position to recommend additional and specialized diagnostic procedures, exploring the different services of professionals within the community.  

Realistic management techniques may also be suggested to the parents, and if determined most appropriate, in light of indications that tranquilizers may not favorably affect attention span and distractibility, some type of drug intervention may be indicated.

Far from suggesting that early childhood learning disabilities should be defined in light of a medical model, educational implications seem most far reaching, when examining long range management and objectives concerning the life span of that learning disabled individual. As the young child enters the nursery school or earliest school experience, the teacher may become the one who may discover some problem in light of the observation of developmental sequences and behavioral milestones, and by comparing a child who seems to be lagging markedly behind peers in one or more areas. "Behavior that should be a cause for concern includes a widespread pattern of development that is a year or more behind the typical in physical, social and intellectual areas. Such lags are often accompanied by speech that is obviously immature for the child's chronological age."

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26 Ibid., p. 179.

SUMMARY

Descriptions were given of developmental patterns in the physical and cognitive schema of the child from birth to the preschool years. Five major areas of cognitive development, as well as the three areas of behavior considered to be classic reactions in children with minimal dysfunction, were described. The role of the physician as the primary screening agent and the parent and nursery school teacher as early observers of developmental milestones in the early detection of possible learning disabilities was stressed.
A well planned program of identification and assessment is a necessary step in the selection of learning disabled children at the preschool level. A good procedure should be systematic and comprehensive, including all children, and using both objective and subjective criteria. The initial processes used for identification are developmental charts, intelligence tests, readiness and achievement tests, perceptual-motor tests, language evaluations, and judgement of teachers and parents. Screening measures which are close to the criterion or outcome measures in both content and time should be used. In other words, identify what is to be measured in terms of successful achievement and then identify the skills necessary to achieve in that particular setting. A child's competencies as well as weaknesses should be identified. Attempts should be made to identify a pattern of strengths and weaknesses so that strengths may be capitalized upon, and training may be undertaken in those areas which appear to be deficit skill areas. The components of tasks and situational variables in screening must be considered. Analysis of demands and skills needed for speaking, reading, writing, etc. must be made, keeping in mind the complexity of the demands for the age group. The evaluation must be broad enough to assess how a child

approaches different types of tasks, how he arrives at strategies for
solutions, what motivates him in the way of reinforcers, and how great
or little his ability to maintain attention is to persist in tasks.
A danger of some screening data may "screen out very important variables."29

A total screening program must include different types of
examination methods. The limitations of each method or instrument of
identification must be considered. The most frequently used methods
used in early identification of children with potential learning dis-
abilities and their limitations are shown below:

<table>
<thead>
<tr>
<th>METHOD</th>
<th>LIMITATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physician, parent, teacher</td>
<td>May miss undersachievers, motivational problems, emotional problems, and</td>
</tr>
<tr>
<td>observation.</td>
<td>children with belligerent or apathetic attitudes toward the school program.</td>
</tr>
<tr>
<td></td>
<td>Definitely needs supplementing with standardized tests of intelligence and</td>
</tr>
<tr>
<td></td>
<td>achievement.</td>
</tr>
<tr>
<td>Individual Intelligence Test</td>
<td>The best method, but expensive in use of limited professional time and</td>
</tr>
<tr>
<td></td>
<td>service. Not practical as a general screening tool in schools with limited psychological services.</td>
</tr>
<tr>
<td>Group Intelligence Test</td>
<td>Generally good for screening. May not identify those with pre-reading</td>
</tr>
<tr>
<td></td>
<td>difficulties and emotional or motivational problems.</td>
</tr>
<tr>
<td>Perceptual-Motor Tests</td>
<td>The criterion itself is in need of validation—usually ignore the effects</td>
</tr>
<tr>
<td></td>
<td>of age and intelligence.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>METHOD</th>
<th>LIMITATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Language Evaluation</td>
<td>Must take culture and environmental conditions into account. Language skills of the test administrator are important.</td>
</tr>
<tr>
<td>Readiness and Achievement Test Batteries</td>
<td>Will not identify underachieving children. Otherwise, same limitations as group intelligence test.</td>
</tr>
</tbody>
</table>

Since each method has its limitations and good standards of assessment and identification, a single technique should not be relied upon, but rather a wide variety of diagnostic measures. Developments have been made towards the incorporation of the above methods into single, comprehensive screening programs, and will be discussed later.

The following tests are frequently mentioned in literature and are used in the diagnosis of preschool aged Learning Disabled Children.

**INDIVIDUAL INTELLIGENCE TESTS**

- **Arthur Point Scale of Performance Tests-Revised Form II (Ages 5 to 15 years)** - Psychological Corporation.
- **McCarthy Scales of Children's Abilities (1970) (Ages 2½ to 8½)** - Psychological Corporation.
- **Merrill Palmer Pre-School Performance Tests (Ages 18 mo. to 16 yr.)** - C. M. Stoelting Company.
- **Pictorial Test of Intelligence (PIT) (Ages 3-8 years)**
- **Wechsler Pre-school and Primary Scale of Intelligence (1967) (Ages 4-6½ years)** - Psychological Corporation.

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30 Villar, p. 4.
DEVELOPMENTAL CHARTS

Child Growth & Development, Characteristics and Needs (Ages 4 to 16 years) - National Education Association.

The Developmental Screening Inventory (Ages 4 weeks to 18 months) - Knobloch, Pasamanick and Sherard.

Gesell Developmental Schedules (Ages 4 weeks to 6 years) - Psychological Corporation.

Guide to Normal Milestones of Development (Ages one month to thirty-six months) - Haynes.

Memphis Comprehensive Developmental Scale (Ages 3 months to 4 years).

The Rapid Developmental Screening Checklist (1 month to 5 years).

See How They Grow-Developmental Chart (1967) - Scott Foresman.

Vineland Social Maturity Scale (Ages 3 months to 25 years) - American Guidance Service, Inc.

SENSORY DEVELOPMENT, PERCEPTUAL AND MOTOR MEASUREMENTS

Ammons Full Range Picture Vocabulary Test (1948)(Ages 2-6 to adult) - New Orleans, Louisiana, R. B. Ammons.

Anton-Brenner Developmental Gestalt Test of School Readiness (Fine Motor and Visual Perception) - Western Psychological Services.

Bayley Scales of Mental-Motor Development (Ages 2-30 months) - Psychological Corporation.

Bender Visual-Motor Gestalt (Ages 5-10 years) - Western Psychological Services.

Boehm Test of Basic Concepts (Ages Preschool-Grade 1) - The Psychological Corporation.

C.E.S.A. 13 Early Childhood Assessment--A criterion referenced screening device (Ages 3-6 years).


Cognitive Skills Assessment Battery (Ages Pre-kindergarten and Kindergarten) - Teacher's College Press.

Columbia Mental Maturity Scale (1959) (Ages 3 to 10 years) - Harcourt, Brace and World.
Communication Evaluation Chart From Infancy to Five Years - Business Forms, Inc.

Cooperative Preschool Inventory (Caldwell) (Ages preschool-kindergarten) - Educational Testing Service.

Daberon (Ages 4-6 years) - Daberon Research.

Denver Developmental Screening Test (Ages 1 month to 6 years) - University of Colorado Medical Center.

Detroit Tests of Learning Aptitude (Individual) (Ages 3 years to adult) - The Bobbs-Merrill Company, Inc.

Developmental Tests of Visual Motor Integration (Ages 2-8 years; 2-15 years) - Follett Educational Corporation.

Developmental Indicators for the Assessment of Learning (DIAL) (Ages 2½ to 5½ years) - Dial, Inc.

Developmental Test of Visual Perception (Frostig) (Ages 3-8 years) - Consulting Psychologists Press.

Early Detection Inventory (Ages 3-6 years).

Finding Kids with Special Needs (F.K.S.N.) (Ages Kindergarten through grade 12, although now being used in preschool situations)

French Pictorial Test of Intelligence (1964) (Ages 2-6 to 8-6 years) - Houghton-Mifflin.

GoodEnough Draw-a-Man Test (Ages 3-15 years) - Harcourt, Brace and Co.

Illinois Test of Psycholinguistic Abilities (ITPA) - Institute for Research on Exceptional Children.

Houston S.A.E.N. (Screening Assessment of Educational Needs) Ages 2-7 years).

Leiter International Performance Scale, Arthur Adaptation (Ages 2 through 12 years) - Western Psychological Services and C. H. Stoelting.

Minnesota Preschool Scale (Ages Preschool-grade 1).

Peabody Picture Vocabulary Test (PPVT) Ages 2.4-18 years) - American Guidance Service, Inc.

Pre-School Language Inventory (Ages Infancy to 7 years) - Charles E. Merrill.

Santa Clara Inventory of Developmental Tasks (Ages preschool to 7 years) - Inco. Inc.
Different tests, used individually, or in combination within a screening program are generally selected as to serve the objectives of the program at hand. Some states and areas still strongly cling to a medical model diagnosis of learning disabled children, some philosophies are directed toward psycholinguistic discrepancies, and others seem to be related to observable lags in development of curriculum oriented skills.

In a study whose purpose was to determine if a simple medical history might enable a physician to (1) identify, as early as the age of two years, the child with a low learning potential, and (2) to distinguish children whose academic failure is due to a neurological dysfunction, a Learning Problem Indication Index was formed. After comparing children who had exhibited learning disabilities with a controlled number of students who had average or better school records,\(^\text{31}\) case histories were compared between the two groups as to perinatal and developmental abnormalities of students.

The following items compose the Learning Problems Indication Index:

<table>
<thead>
<tr>
<th>Perinatal History</th>
<th>History of Developmental Abnormalities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prematurity</td>
<td>Creeping (Late or Abnormal)</td>
</tr>
<tr>
<td>Prolonged Labor</td>
<td>Walking (Late)</td>
</tr>
<tr>
<td>Difficult Delivery</td>
<td>Tip Toe Walking (Prolonged)</td>
</tr>
<tr>
<td>Cyanosis</td>
<td>Speech (Late or Abnormal)</td>
</tr>
<tr>
<td>Blood Incompatibility</td>
<td>Ambidexterity (After the age of 7 years)</td>
</tr>
<tr>
<td>Adoption</td>
<td></td>
</tr>
</tbody>
</table>

One score is given for each positive point (abnormality in a child's history). If one or two points are given, the examiner should be "suspicious" of possible future learning disabilities. If three points are given, the case deserves more study, and with four or more scores, further study is deemed mandatory.

At the time of the writing of the article, the LPII had been used by the author in over three hundred cases of diagnosis of learning disabilities, and had been found to be extremely helpful in identifying problems due to neurological dysfunction. Also noteworthy in subsequent cases--less incidence of blood incompatibility and an increase in central nervous system damage in later life were noted. Noted also were a larger number of cases of malnutrition. Further study also suggested that late development of the ability to maintain a sitting position without assistance should be included in the index (late if the sitting position developed at the age of nine months or more).  

While the study was not matched as to control and experimental groupings, the LPII appears to be an additional aid in diagnosis for the

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32 Ibid., p. 33.
very young, "at risk" children, and is not meant to be in and by itself, a diagnostic instrument.

In a followup study of Hoffman's Learning Problem Indication Index (LPII), Wilbourn and Smith compared with LPII results, those children referred to the Pupil Appraisal Center of North Texas State University--an interdisciplinary service center. Over a six year period of time, it was found that there was generally close agreement between findings for the Pupil Appraisal Center population and Hoffman's data of "failing" students. Although factors compared did not have one to one correspondence, it was found that of special significance was the relatively high percentage of occurrence of low birth weight and the mother's problems during pregnancy. Although a higher number of the Pupil Appraisal Center population did not report any abnormal peri-natal or developmental difficulties than in the Hoffman study,33 it was deemed apparent that the index can be used as a screening device by both physicians and school personnel in coordination with required personal and developmental histories and in conjunction with personal observations.

Wilbourn and Smith caution that "...the presence of any of the index predictors does not definitely confirm the presence of learning problems. Instead, the index should be employed as one instrument in a screening battery."34

Omaha, Nebraska, has attempted to combine the resources of professionals and parents to jointly serve those children, ranging in grades

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34 Ibid., p. 370.
from kindergarten to senior high who do not perform well in the usual, structured academic setting. The word STAAR has been adopted to mean: skills-techniques-academic abilities-remediation. 

Community, educator and medical inservices and conferences were jointly held to identify the existing problem and to procure sponsorship of the intervention project. Long range implementation and ongoing education was carried on through general seminar presentations, parent participation programs (including a parent tutorial group), development of central community diagnostic facilities, accumulating training aids and resources, and fostering interaction and communication between the educational and medical communities as helpers for children rather than opposing forces through the isolation of the disciplines. 

Presently, an important outgrowth of this program serving approximately 600,000 people in four counties, including approximately one-third of all children in school attendance in the state of Nebraska, is the realization of the need for the prevention and early identification of the child with learning problems. Future plans and innovations that include a program which would help parents establish course of study on sensory perception, body dominance and eye-hand coordination in the pre-school years is felt to be needed. Ground has been broken for creative, perceptually oriented playgrounds, which have been funded jointly by the City of Omaha Parks and the Recreation Division of the Omaha Board of Education. It is felt that the "Play to Learn" playgrounds

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36 Ibid., p. 421-424.
are vital aspects of prevention and correction of perceptual problems.

The need for careful, early identification of children who are potential candidates for specific learning problems is felt to be of importance. Special note is taken of possible "high risk" children—children who were born prematurely, or had childhood illnesses such as chicken pox, mumps, measles, neonatal respiratory distress problems, or the mother had a difficult labor, or numerous other conditions that may, through causing subtle brain dysfunction, impair learning ability. 37

Health, Education and Welfare statistics (HEW) (fiscal year 1968), note that less than 3% of the developmentally suspect population was referred under 12 months of age, and that less than 15% was referred under 3 years of age. 38 Of those children identified as "developmentally at risk," 30% of those children diagnosed as handicapped has significant learning disability, and an additional 25% falls into the category of minimal cerebral dysfunction. 39

The most extensive pre-school identification, then, seems to take place within the realm of the educational setting, usually beginning around the age of four. The need to screen all children entering Kindergarten has been established by Chapter 89, Laws of 1973, State of Wisconsin. This law states that the groups of children who need to be screened are, those "who are entering school for the first time" and those children "below the age of five, prior to entry into school." 40

37 Ibid., p. 427.
38 Meier, Developmental and Learning Disabilities, p. 155.
39 Ibid., p. 155.
40 Chapter 89, Laws of 1973, State of Wisconsin, Statutes 115.80, Sections 2.21 and 2.231.
Preschool procedures of screening are appropriate for this population. The 1975 Public Law 94-142 also states that Federal funding shall be available to local educational agencies for "... handicapped children aged three to twenty-one inclusive, receiving special education and related services in all local educational agencies and intermediate educational units...", and that "... all children residing in the State regardless of the severity of their handicap, and who are in need of special education and related services are identified, located and evaluated...". Also, incentive grants shall be made to any State which "... provides special education and related services to handicapped children aged three to five, inclusive...".

Identification still involves testing within individual disciplines. The use of electroencephalography (EEG) instrumentation is becoming refined. As various new findings emerge, and doubts are dispelled about its validity and reliability, the measurement of electrical activity in the brain and the interpretations of the pattern of this activity, may be accepted as a relatively simple and clear-cut measurement of neurological functioning, with the findings serving as an index to neurological immaturity.

The Neurological Screening Test (NST) assesses laterality, sense of direction, some cranial nerve functions, fine and gross motor coordination and sensory functions deemed to be of special importance to

41 Public Law 94-142, Statute 89, Section 611 (1975).
42 Ibid., Section 612.
43 Ibid., Section 619.
44 Neier, Developmental and Learning Disabilities, p. 205.
kindergarten age children. Some concurrent and limited predictive validity for the NST has been established in terms of correlation with the Metropolitan Readiness Test and the Vane Kindergarten Test, across several socioeconomic levels and ethnic groups.\textsuperscript{45}

The Neuro-Developmental Observation Test by Ozer and Richardson consists of four sections that would give teachers insight into how a young child learns. The test is divided into four performance areas. Strategies are also provided to be used to aid the child in successful performance if he is unsuccessful.\textsuperscript{46} Tasks include hand and body part labeling according to left and right, evaluation of the child's ability to learn through varying modalities, and the child's ability to function at a task when both visual and auditory distractors are present.\textsuperscript{47}

In the area of intellectual assessment, one noteworthy instrument seems very promising in the area of early childhood assessment. The McCarthy Scales of Children's Abilities is designed to assess verbal functioning, perceptual functioning, quantitative abilities, general cognitive ability, memory ability, motor ability and laterality. There are 18 subtests which are designed to assess these various functions. Laterality assessment is kept separate from the other indices of children's abilities. Mental and motor abilities of children in the 2\frac{1}{2} to 8\frac{1}{2} year range are assessed. Through examiner interpretation, patterns

\textsuperscript{45}Ibid., p. 204.


\textsuperscript{47}Ibid., p. 90.
of strengths and weaknesses, learning abilities and disabilities may
be determined, both in comparison to other children of the same chron­
ological age, and in comparison to the child's own ability.48

In selecting an instrument to use in the pre-school child's
personal-social development, the following six conceptual approaches
are basically available: projective techniques; unobtrusive measures;
observational procedures; rating scales; self-report measures; and
situational measures. Limitations are noted in each of the above,
involving judgmental bias, personal bias and reliability and validity.49

Personal and social development should be assessed within the scope of
the whole child, and should not be situationally judgmental, within the
scope of an evaluation session.

Between the ages of three to six, the child's linguistic perfor­
mance becomes one of the most useful dimensions of behavior for evaluating
his overall development. One promising language screening device, The
Utah Test of Language Development (UTLD) is an instrument which assesses
both the onset and the progressive maturation of developmental mile­
stones in children's language. The clinician is provided with an
objective measure of expressive verbal language skills in both normal
and handicapped children, ages one through five. A power test, it
has been designed for use with "aphasic and hyperactive brain injured
individual." Face validity is assumed since the fifty-one items were

48 Alan S. Kaufman, "Analysis of the McCarthy Scales in Terms of
Guilford's Structure of Intellect Model," Perceptual and Motor Skills

49 William F. Barker and Others, The PreSchool Rating Scale
(Paper presented at the Annual Meeting of the National Council on
chosen from other standardized sources.  

The Illinois Test of Psycholinguistic Abilities (ITPA) was designed to detect specific abilities and disabilities in communication, involving language functions, perceptual-motor tasks, memory, higher thought processes and other abilities. Made up of nine subtests involving decoding, encoding and association, abilities measured are automatic and short term memory functions in auditory and visual areas, with some motor involvement included. Standardization testing suggests that the subtest results of children with learning difficulties show little consistency, whereas those patterns of children without learning difficulties show a rather even development, with little inter and intra-test scatter. The ITPA also can provide the basis for the carrying out of remedial educational activities, within the realm of processing activities.

With regard to the assessment of language evaluation, Beery suggests, "No one set of tasks involved in the measurement of the aspects of language is likely to establish a reliable and specific pattern of deficit." By differences in standardization or exploratory measures more based on criterion reference, instruments vary in effectiveness and purpose.

With the emphasis on early preschool screening, efforts have been made to develop more comprehensive screening instruments which may

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52 Ibid., p. 24.
53 Berry, Language Disorders of Children, p. 259.
help in the early identification of problems that could interfere with a child’s potential for adapting to the social and academic demands of the school environment.

The Preschool Rating Scale (PRS) is a numerical rating scale for use by child care/giver teachers to detect preschool children who may show possible problems, and is constructed to show child progress in development over a period of time. The PRS is divided into five subtests containing twenty items, involving four choices ranging from "very low" to "high levels" of competence, viewing child performance. Areas to be rated by the child care/giver teachers, or by selected members of an educational evaluation team are:

- Coordination (2 items)
- Verbal expression (3 items)
- Auditory understanding (6 items)
- Orientation (5 items)
- Social relations (4 items)

In rating, a one (1) stands for low level of performance, whereas a four (4) or five (5) stand for high level of performance. A test total is obtained by adding the five subtest scores.

Four classification variables have been defined for each subject being evaluated:

- Socio-economic status (low/high)
- Sex (male/female)
- Age group by months (36-42, 43-47, 48-53, 54-59, 60-65, 66-71)
- Group type—determined by reports of child care/giver teachers for level of evaluation.

In viewing a study involving 1,166 children and child care/giver teachers.

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giver teachers, it has been determined that the PRS can be effectively used to document longitudinal developmental gains. It would seem to be an effective screening device for the detection of children from three to six years old who may be having personal-social development problems, and also structure child care giver/teachers in specific terms with regard to the child’s development. It gives the teacher an aid when discussing the child’s needs with the parent.\footnote{Ibid., p. 7.}

With an average of interrater coefficient of .74, it gives another dimension in the assessment of the child, and insight into diagnosis. It may provide accountability information and developmental gains through repeated use.\footnote{Ibid., p. 8.}

The Early Identification Screening Inventory (EISI) was developed by Medvedeff, in conjunction with a number of specialists including medical doctors, psychologists, teachers, school administrators, in conjunction with extensive research of developmental and behavioral literature. Ninety-five percent reliability is achieved by the "yes-no" instrument used to evaluate six areas of student behavior, including: visual-motor, visual, speech and hearing, physical and behavioral, psychomotor, and psychological. Although specifically developed for use in kindergarten and grade one, the materials may be used to correctively treat students at any grade level. It consists of three phases involving materials that have been fully field tested and normed. Phase I is that of Identification. Phase II involves Diagnostic Testing. Simple diagnostic tests are used: the Motor Perceptual Diagnostic Inventory (MPDI) and the Fine Visual Motor Screening Inventory/Perceptual Organization.
Screening Inventory (FVMSI/POSI). Evaluation of the following are made: three basic motions (left to right, top to bottom and counterclockwise). Also evaluated are: gross motor ability, coordination and balance and neurological maturity. Phase III deals with curriculum programming. The total classroom program is created with the aim of bringing each student to the peak of individual potential for a successful learning experience.\(^{57}\)

The Kindergarten Questionnaire (KQ) is designed to detect problems in the following areas: emotional, learning speech, health and perceptual problems, at the pre-kindergarten level, and to facilitate intervention where appropriate. It was developed and used in the Arlington, Virginia Public Schools. The goals of the KQ are: to assess readiness in the child, to provide more complete information to the teacher, to inform the family of available services in a non-threatening way, to help the school system with its service to the child, and to provide mental health services to the community, using the school as a vehicle.\(^{58}\)

Screening is carried out in the spring, prior to kindergarten entry and is a total personnel effort--involving pupil personnel, kindergarten teachers, principals, administrators and parents. A learning team made up of school personnel attempts to take a global look at the child. Parents, with the help of one member of the learning team, fill out a Parent Questionnaire which covers perceptions of development in health, speech, emotional development, motor, dominance and readiness. The child's form requires fine motor activities, tasks of gross and fine

\(^{57}\) Early Identification of LD, p. 11-14.

motor coordination, readiness activities, and speech and expression of feelings. The child is also observed in the kindergarten room, in a play situation. Notes are made of actions and reactions to people, objects and situations. A review meeting is held by the learning team to determine which children would benefit from immediate attention prior to fall entry into school. Parents are contacted with referral sources within the school and community.

In the time period between 1970 and 1972, with a population of 493 children, the predictive validity of the category of children judged to need "immediate attention" has a correlation of .76 between observers. Candidates for "immediate attention" were those who appeared to have a pronounced difficulty in just one category, or highly irregular pattern in just one category, or questionable patterns in more than one category. The NN's validity increases in schools where more services are available, and there appears to be a tendency for predictive validity to increase on a longitudinal basis.

Finding Kids with Special Needs (FKSN) is an identification instrument modeled after the vignette approach used by Stern, Rucker and Gable. It consists of thirty-nine vignettes which describe ten major handicapping conditions. It was field tested in one hundred ten schools, using 24,825 children in grades K-8, and suggestions are made for a downward extension of the instrument. Of twenty-four children studied, using a Pearson r correlation coefficient, overall correlation between FKSN and previous diagnostic results was .89. The number of areas

59 Ibid., p. 2. 60 Ibid., p. 4.
picked up by FLRN showed the correlation coefficient to be .97, although a significant difference was noted (p < .05) between the validation sample and the field sample for the gifted, learning disabled and speech areas of need.

Programs using the Denver Developmental Screening Test (DDST) are the Kansas City Outreach Model and the St. Louis County Health Department Model. The DDST is made up of one hundred five items, evaluating accomplishments of children from birth to six years. The test measures development in four areas: personal-social, fine motor adaptive, language and gross motor. Test items appear to have greater strengths at ages three and four than at ages five and six. Results are given to parents and work is done to forward the results of the screenings to each child’s school at the time of entry, especially for those children found to be “at risk” in terms of a delay in development, which is indicated by failure to pass an item which 90% of children of the same chronological age can perform.

The need has been felt for the development of one procedure in the area of Pre-kindergarten screening which would incorporate all of the essential elements found separately in many other tests. The Developmental Indicators for the Assessment of Learning (DIAL) is one of the screening batteries which is used to measure school readiness in pre-school children. It is designed to provide specific information on strengths and weaknesses in process areas for children between

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62 Ibid., p. 22-23.
the ages of two and one half and five and one half, and can be administered in one-half hour or less. It was designed with a format for the screening of a large population, and assesses the area of gross motor, fine motor, concepts and communication. 65

Created in 1972, the DIAL was revised in 1973 through funding granted for the purpose of supplying missing data and answering additional questions regarding reliability and predictive validity of this pre-school screening instrument. Five experts in exceptional education areas were involved in the examination and restandardization of the DIAL. The following areas and experts were cited:

--Testing and measurement--Dr. Leonard Feldt
--Motor development (fine and gross)--Dr. Lolas Halverson
--Followup procedures--Dr. T. E. Jordan
--Content of the battery and procedures for empirical validation--Dr. Burton L. White
--Revision of the manual--Dr. Bettye M. Caldwell

A two year followup was done involving four sites in Illinois. A classroom performance assessment was to be filled out by the teacher of the specific child on which followup was being done, with twelve categories to be completed. Conclusions concerning the DIAL were:

--Content of the DIAL seems consistent with trends and information regarding child development.

--Training of DIAL examiners seems to result in high reliability of test administration and scoring procedures.

Validity of DIAL II seems sufficiently high to use for widespread screening of children four years or older.

Predictive validity for children two and one half to four years of age seems indicated, but is based on incomplete information.

Revision of DIAL II was recommended with four years required for compilation of norms and data concerning reliability and validity.


In an effort to aid the educator in evaluating screening instruments, Heopfnes, Stern and Nummedal categorized one hundred twenty published tests into the category of preschool (30-59 months) and kindergarten (60-72 months). These tests (including six hundred thirty subtests with separately normed scales), were evaluated through the MEAN test evaluation procedure which reflected four main areas of concern:

1. \textit{Measurement validity}--how well does the test measure the specific goal behavior.
2. \textit{Examinee appropriateness}--involving content and speed versus power response recording and format.
3. \textit{Administrative usability}--involving training test examiners, length not over twenty minutes, scoring ease and susceptibility to meaningful interpretation.
4. \textit{Normed technical excellence}--including breadth, age, conversion system, ease of interpretation and representativeness (to meet the criteria of regency, representation of geographic areas, ages, racial and ethnic origin and types of schools).
The MEAN procedure, implemented by a team of test evaluators, provided test users the following advantages:

--Conciseness in format
--Currency of materials
--Educational relevance of individual subtests to educational goals
--Objectivity by utilizing explicit MEAN criteria
--Consistency by evaluating all tests against a single set of criteria

Only preschool screening instruments were reported, and those instruments meeting the MEAN criteria very well were rated with the highest overall grade of "good" and are endorsed by CSE and ECRC for assessment efforts.

All subtests and tests measured were in need of at least some revision and improvement in the area of measurement validity, according to the total cumulative areas of content and construct, concurrent and predictive validities. Only two tests, the Peabody Picture Vocabulary and the Van Alstine Picture Vocabulary were rated as "good" in measurement validity. In this area of measurement validity, seventy-two subtests within tests were rated as "fair"--among the better tests available, and in need of alterations, subject to cautious review when used.

Listed as "good" in the area of examinee appropriateness (format) were:

Columbia Mental Maturity Scale (Total)

Detroit Tests of Learning Aptitude--(Free Association, Auditory Attention Span for Related Syllables, Auditory Attention Span for Unrelated Words)

Goldman-Fristoe Woodcock Test of Auditory Discrimination (noise subtest and quiet subtest)
GoodEnough-Harris Drawing Tests (Point scale: man, Point scale: self, Quality scale: woman, Quality scale: woman)

Illinois Test of Psycholinguistic Abilities (ITPA) (Grammatic closure and Auditory sequential memory)

Leiter International Performance Scale (Arthur Adaptation) (Total)

Oseretsky Tests of Motor Proficiency (Total)

Parent Readiness Evaluation of Preschoolers (Opposites)

Pictorial Tests of Intelligence (Similarities, Information and comprehension, Picture vocabulary, and Form discrimination)

Preschool Attainment Record (Information)

Preschool Inventory (Total)

Riley PreSchool Developmental Screening (Designs)

Ring and PRC Tests of Behavior Development (Total)

Southern California Kinesthetic and Tactile Perception Tests (Manual form perception, Localization of tactile stimuli, Double tactile stimuli perception, Identification)

Southern California Motor Accuracy Test (Total)

School Readiness Survey (General Information)

Templin-Darley Tests of Articulation (Groupings of vowels and diphongs, Consonant clusters, Diagnostic test, Grouping of consonant singles, Iowa Pressure Articulation Test, and Screening Test)

Vallet Developmental Survey of Basic Learning Abilities (Motor integration, Physical development, Language development and Verbal fluency)

Van Alstine Picture Vocabulary Test (Total)

Verbal Language Development Scale (Total)

WPPSI (Similarities, Comprehension, Information, Sentences, Geometric designs, Arithmetic, Information, Vocabulary, Picture completion)

No tests were rated as "good" in normed technical excellence.

Ten tests and subtests were rated as "fair."

37
Rated as "good" in administrative usability (administration, scoring and decision making) were:

School Readiness Survey (General Information, Speaking vocabulary, Listening vocabulary, Color naming, Symbol matching, and Discrimination of form)

Tests of Basic Experiences (Level K) (General concepts tests, Language, Mathematics, Social Studies and Science)

Although preschool screening programs whose purpose it is to identify the "at risk" child are common throughout the country at this time, a comment of caution seems to be in order.

"On the basis of present evidence, it seems reasonable to conclude that relationships between single, specific preschool test findings and later school achievement are too low to allow definitive prediction about individual children. The limited predictive validity for individual cases is, in part at least, a function of the limited range of competencies tapped and the almost total concern with conditions of deficit or disturbance within the child."

SUMMARY

Screening programs were discussed as to purpose and different types of examination methods. Limitations of each method were noted. Screening instruments mentioned in literature and ratings of screening instruments as to SCE and ECRC assessment were listed. Specific tests in the areas of the assessment were reviewed, and some screening programs in operation were summarized. Cautions were also given regarding predictive validity of screening instruments.


68 Keogh and Becker, p. 7.
CHAPTER III

PRE-SCHOOL SCREENING IN THE METROPOLITAN MILWAUKEE AREA

The pre-school screening procedure is felt to be advantageous for the fact that children who may be discovered to be "educationally at risk" may be identified early, and given special services to aid in the remediation of the delay or difficulty. With the learning disabled child, strengths within a learning style may be utilized within an educational program, and weaknesses may be worked on both in remediation situations and in compensatory alternatives. In our concern for early identification and intervention, however, the following caution should be heeded, "It is vital to be aware of the dangers of 'labeling' a child as deficient in some way and to strive to avoid doing so inadvertently. It is obviously undesirable to weaken a child's self-confidence by singling him out as inadequate . . . A significant function of early screening is to provide a basis for continuing investigation and planning in growth and development."69

As a part of the examination of pre-school screening instruments and procedures, a survey was undertaken within the Milwaukee and selected surrounding suburban school systems. Screening questionnaires were sent to twenty-eight school systems in the Metropolitan Milwaukee area.

regarding pre-school learning disabilities screening procedures.

After the approval of Kliebhan of material to be used, an introductory letter was sent explaining the purpose of the two page survey. Enclosed surveys were sent back in a provided, self-addressed, stamped envelope. Seven school systems were sent a second survey in a followup effort for those who had not returned the original survey within eight weeks of the initial contact. Of the twenty-eight questionnaires sent, twenty-five were returned. Twenty-three of the twenty-five were completed, and two of the twenty-five were sent back incomplete.

SCHOOL SYSTEMS CONTACTED

<table>
<thead>
<tr>
<th>School System</th>
<th>City</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brookfield/Elm Brook</td>
<td>Milwaukee</td>
</tr>
<tr>
<td>Brown Deer</td>
<td>Muskego/Norway</td>
</tr>
<tr>
<td>Cedarburg</td>
<td>New Berlin</td>
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<tr>
<td>Cedar Grove</td>
<td>Oostburg</td>
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<tr>
<td>Cudahy</td>
<td>Port Washington</td>
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<tr>
<td>Fredonia</td>
<td>Random Lake</td>
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<tr>
<td>Germantown</td>
<td>St. Francis</td>
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<tr>
<td>Glendale/River Hills</td>
<td>Shorewood</td>
</tr>
<tr>
<td>Grafton</td>
<td>South Milwaukee</td>
</tr>
<tr>
<td>Greendale</td>
<td>Waukesha County #1</td>
</tr>
<tr>
<td>Greenfield</td>
<td>Wauwatosa</td>
</tr>
<tr>
<td>Hartford</td>
<td>West Allis</td>
</tr>
<tr>
<td>Menomonee Falls</td>
<td>West Bend</td>
</tr>
<tr>
<td>Mequon/Theinsville</td>
<td>Whitefish Bay</td>
</tr>
</tbody>
</table>

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To: The Director of Pre-School Screening  
Muskego Public Schools  
Box 48  
Muskego, Wisconsin 53150

To whom it may concern:

In accordance with the requirements for the completion of my Master's Degree in Learning Disabilities from Cardinal Stritch College, I am presently working on a term paper dealing with the subject of "Pre-school Screening of Possible Educational Difficulties."

In addition to the required review of recent literature examining types, methods of, and pros and cons concerning this type of screening, I have constructed a questionnaire which is being sent to twenty-eight school systems within the metro-Milwaukee area which briefly examines procedures concerning local screening programs that are actually in existence, tests used in these programs, and projected changes for the future in this area.

Since I am dependent upon your input into and return of this questionnaire, would you please take a few minutes to fill in the answers to the best of your knowledge (estimates are fine) and return it to me via the enclosed, self-addressed envelope. I would really appreciate your help, and will compile the data as the third chapter of my research paper, which will be on file at the Cardinal Stritch Library.

Thanks so much for your time and professional consideration and cooperation. I shall anxiously await your reply.

Sincerely,

Marsha Gullickson

Enclosure:  
Questionnaire  
Self-addressed, Stamped Envelope
The following questionnaire was reproduced and sent:

PRE-SCHOOL SCREENING QUESTIONNAIRE

School system: ____________________________________________________________

Director in charge of Pre-School Screening: ________________________________

Information obtained from: _______________________________________________

1. Pre-school screening was started in your school system in the year ___.

2. Check the types of pre-school screening offered in your school system:
   - Vision
   - Hearing
   - Complete Medical
   - Mental Retardation
   - Emotional Disturbance/Behavioral Disabilities
   - Learning Disabilities
   - Others

SPECIFIC LEARNING DISABILITIES INFORMATION

1. In what year was pre-school L.D. screening in your system? ___________

2. How many pre-schoolers were screened in the most recent screening program? ___________

3. How many pre-schoolers have been screened since the beginning of your school system’s screening program? ___________

4. How many people are required to carry out your screening program? ___________

5. Indicate the numbers of persons required to carry out your screening program:
   - Administrators
   - Psychologists
   - Speech and Language Pathologists
   - Social Workers
   - Diagnostic Learning Disabilities Teachers
   - Multi Disciplinary Team Coordinators and/or Diagnostic Instructional Specialists
   - Paraprofessionals
   - Volunteers and/or parents
   - Others

6. Is screening required for all pre-school children entering your school system? Yes ___ No ___

7. Please list tests used for pre-school Learning Disabilities Screening:
   ____________________________________________________________
   ____________________________________________________________
   ____________________________________________________________

Please use the back of this sheet if more space is required.
8. How many children that were identified as having Learning Disabilities needs by a pre-school screening program are presently being served by existing programs? ____________

9. How soon is re-evaluation provided for children in pre-school programs? (L.D.) ____________

10. Approximately what percent of those children identified by pre-school screening are transferred into primary L.D. classes? ____________

11. How do you perceive community acceptance and support of the pre-school screening program?
   - Excellent
   - Good
   - Fair
   - Poor

12. How do you perceive teacher acceptance and support of the pre-school screening program?
   - Excellent
   - Good
   - Fair
   - Poor

13. Does your school system have plans for revision and/or expansion of the Learning Disabilities pre-screening programs? Yes ____ No ____
   If yes—please elaborate ____________

14. Further Comments: ____________

   ____________
   ____________
   ____________
   ____________
RESULTS OF THE PRE-SCHOOL SCREENING QUESTIONNAIRE

To the question, "Pre-school screening was started in your school system in the year ______," the following answers were given:

--One started in 1965
--Two started in 1967
--No programs were started 1968-1970
--Five started in 1972
--Six started in 1974
--Two started in 1975
--Two did not answer the question

To the question, "Check the types of pre-school screening offered in your school system," the following percentages were compiled:

<table>
<thead>
<tr>
<th>Type of Screening</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vision</td>
<td>100%</td>
</tr>
<tr>
<td>Hearing</td>
<td>100%</td>
</tr>
<tr>
<td>Learning Disabilities</td>
<td>78%</td>
</tr>
<tr>
<td>Emotional Disturbance/B.D.</td>
<td>56.5%</td>
</tr>
<tr>
<td>Complete Medical</td>
<td>52%</td>
</tr>
<tr>
<td>Speech and Verbal</td>
<td>35%</td>
</tr>
<tr>
<td>Gross Motor</td>
<td>35%</td>
</tr>
<tr>
<td>Fine Motor</td>
<td>13%</td>
</tr>
<tr>
<td>School Readiness</td>
<td>13%</td>
</tr>
<tr>
<td>General Suspected Ex. Ed.</td>
<td>4%</td>
</tr>
<tr>
<td>Concept Development</td>
<td>4%</td>
</tr>
</tbody>
</table>
To the question, "In what year was pre-school L.D. screening started in your school system?" the following answers were given:

--One started in 1965
--Two started in 1967
--No programs were started 1968-1970
--Two started in 1971
--Five started in 1972
--Five started in 1973
--Six started in 1974
--Two started in 1975
--Two did not answer the question

To the question, "How many people are required to carry out your screening program," a total compilation of 779 for all the school districts was obtained.

To the question, "Indicate the numbers of persons required to carry out your screening program," the following results were compiled:

Total numbers of persons involved in screening for all of the answering school districts was 779. Of this total, 292 were involved with the Milwaukee Public School System screening of 10,000 children. The number of 292 comprised 37% of the total persons involved in screening of the school districts. Of this number from MPS, 51.4%, or 150 persons were Multi Disciplinary Team Coordinators and/or Diagnostic Instructional Specialists, 35.6% were Para-professionals, 8.9% were reading resource teachers, 1.4% were psychologists, 1.4% were speech and language pathologists, and 1.4% were Learning Disabilities diagnostic teachers. Of the remaining 487 people in other school systems, the following breakdown was noted: 227 volunteers comprised 46.6% of the screening force,
61 speech and language pathologists comprised 12.5% of the total, 47 administrators comprised 9.7%, 43 para-professionals comprised 8.6%, 37 classroom teachers comprised 7.8%, 30 psychologists comprised 6.2%, 13 social workers comprised 2.6%, 13 nurses comprised 2.6%, 9 Multi-Disciplinary Team Coordinators and/or Diagnostic Instructional Specialists comprised 1.8%, and 7 Learning Disabilities diagnostic teachers comprised 1.4% of the total.

From this information, a ratio of pre-school children screened to screening personnel was formed. A high of 35.7 children and a low of 5.6 children were seen by all screeners, both professional and voluntary. Ratio of children served by professional staff only, ranged from a high of 86.6 children for each professional to a low of 9.4 children. The average number of children seen by all screeners, including volunteers, was 16.4, where the average of children served by professionals only was 34.6 to each.

To the question, "Is screening required for all pre-school children entering your school system?" 78% replied "yes," while 12% replied "no."

The following tests were listed within the local pre-school screening programs: ABC Inventory, Anton-Brenner, Auditory Screening (2), Boston Discrimination, C.E.S.A #13 (2), Comprehensive, system-made test (7), Cratz Martin, Daberon (3), DIAL, Early Childhood Assessment-Criterion References, Evanston Pre-school Assessment, Family-Daton Report, Fine Motor Assessments (2), Fluberty, Goldman-Fristoe, Gross Motor Assessment (2), I.Q. assessments, ITPA (2), Myklebust Screening, PPVT (5), Pre-School Survey Questionnaires (2), School Readiness Survey-Consulting Psychologists Press, Inc., Slosson (2), Verbal Assessments, Visual Assessments (2), VMI.
To the question, "How soon is re-evaluation provided for children in pre-school programs? (L.D.)," the following percentages were compiled: 17.3% provided re-evaluation after 2 to 3 months. 8.6% provided re-evaluation after 3-6 months. 30.4% provided re-evaluation after 1 year, while 13% provided re-evaluation after 3 years, as required by state law. 13% were not specific on the re-evaluation period, and 17.3% of the information was not available.

To the question, "How do you perceive community acceptance and support of the pre-school screening program?" the following answers were given: 64% of those answering the questionnaire perceived "excellent acceptance and support," while 36% perceived "good" support.

To the question, "How do you perceive teacher acceptance and support of the pre-school screening program?" the following answers were given: 68% of those answering the questionnaire perceived "excellent acceptance and support," 27% perceived "good" support, while 5% perceived "fair" support. "Poor" support and acceptance was not perceived in either question in either community or teacher support of the screening programs.

To the question, "Does your school system have plans for revision and/or expansion of the Learning Disabilities pre-school screening programs," the following answers were given: 34% answered "yes," 49% answered "no," and 17% did not answer the question.

Reasons given for future revision were: "to review new assessment devices, for the purpose of gathering statistics, to broaden screening based upon early instruction and developmental levels, to change to performance oriented testing instead of subjective testing, for the purpose of annual efficiency reviews, and to reduce the number of personnel needed."
Questions 2, 3, 8, 9, and 10 were not compiled because of the wide variance and types of answers given. Question construct was considered faulty.

CONCLUSIONS

The greatest number of pre-school screening programs were created from the years 1972-1974. Learning disabilities pre-school screening programs and general pre-school screening programs show a one-to-one correspondence as to year of creation, in the years 1965-1975.

Within the pre-school screening program, the sensory functions of vision and hearing acuity are checked in each instance. Learning disabilities screening is conducted with more regularity than screening for mental retardation and emotional disturbance and behavioral disability. Speech and verbal functioning, for which literature suggests may be an indication of aspects of intelligence, is screened approximately one-third of the time, while motor functions and school readiness receive low priority mention, with regards to screening frequency.

Of the school systems surveyed, it appears that with the exception of the Milwaukee Public School system, that volunteers and unpaid personnel comprise nearly one-half of the screening force. Speech and language pathologists and administrators make up greater percentages of personnel than the more highly trained educational specialists such as psychologists and Learning Disabilities diagnostic teachers.

While few pre-school screening programs showed agreement upon testing instruments selected, one hundred percent of the systems felt that community acceptance and support of the program was "excellent or good," and ninety-five percent of the systems felt that teacher acceptance and support of the screening programs was "excellent or good."
Program administrator satisfaction seems also to run high, since only approximately one-third of those replying to the survey commented on plans for revision and/or expansion of the Learning Disabilities pre-school screening program. Program revision reasons generally dealt with refinement of the actual examination process and testing.

A bell shaped curve, or normal distribution curve seemed indicated in the reporting of the length of time in which re-evaluation was provided for children in the pre-school I.D. programs, with the fewest evaluations taking place after 3-6 months, and the greatest taking place after one year.

SUMMARY

The procedure of conducting the pre-school screening procedure was explained, along with a listing of school districts to which the surveys were sent. Examples of the letter of introduction and the survey were included. Screening results were compiled and discussed, and general conclusions were drawn, in light of survey results.
CHAPTER IV

CONCERNING THE EFFICACY OF EARLY IDENTIFICATION PROGRAMS

There are many pre-school identification programs in existence today for children who may exhibit "at risk" characteristics in comparison to their chronological age peer group. Children who have been identified early in their educational lives have been done so by various screening techniques and measurement instruments, few of which demonstrate the necessary reliability to be used in decisions regarding differential educational programming. Yet, children are being identified and labeled as "learning disabled" every day by school psychologists, educational diagnosticians and multidisciplinary teams.

Though early identification and remediation is essential to a child with learning problems, the chance of misclassification and error is enormous as well as the knowledge that the label, once applied, may remain with the child throughout his educational life. This fact should be seriously considered by all school professionals. Research has shown that labels do effect the attitudes of teachers, peers, and parents toward the young child, indicating the need for conclusive empirical support to substantiate the label and its usefulness in education.

Teachers of the learning disabled must settle down to systematic, long term efforts to improve the child's education on the basis of appropriately determined goals.

An appropriate educational placement program should include a
more effective, comprehensive and earlier diagnosis of learning needs and quicker assistance which will lead to a better personal and social climate for the child. Many factors are related to the establishment, maintenance and improvement of educational placement. When educators are able to demonstrate reliable and valid identification of processes which underlie academic skill development and demonstrate empirical links between these processes or abilities and particular instructional strategies, then implementation of these strategies into educational settings can be undertaken.\(^7\)


