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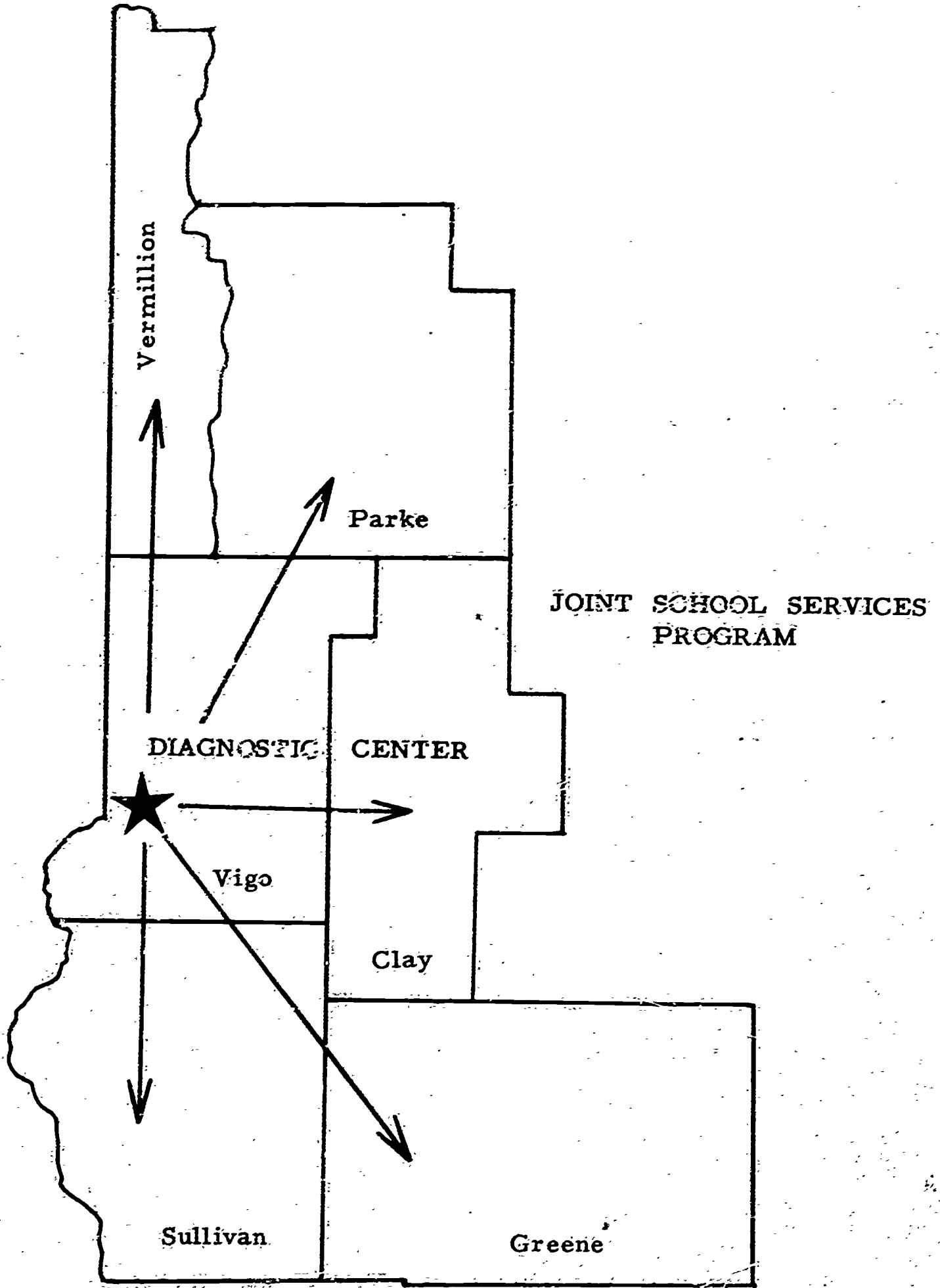
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ABSTRACT

Developed to aid children with learning difficulties, from mental retardation or brain injury to maladjustment or physical or environmental handicaps, the joint school services program provides psychological evaluation and prescription development. The handbook reviews theories of child development and surveys behavior modification and reinforcement theory, including vocabulary, summary, and bibliography. Also, psychological tests and techniques for measuring intelligence, personality, and achievement are listed and explained. Over one-fourth of the document consists of procedures and forms for referrals and case histories at both elementary and secondary levels, for the consultant's report, and for followup. (JD)

PSYCHOLOGICAL EVALUATION
AND
PRESCRIPTION DEVELOPMENT HANDBOOK

ED038795



FEBRUARY 1970

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A PROJECT DEVELOPED THROUGH COOPERATIVE FUNDING:

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TITLE VI, ESEA
STATE SUPPORT FOR SPECIAL EDUCATION
JOINT SERVICES SUPPORT

COOPERATING SCHOOL DISTRICTS:

Bloomfield School District
Central School District - Greene County
Clay County - Clay Community Schools
Linton-Stockton School Corporation
Metropolitan School District of Shakamak
Parke County - Rockville Consolidated School
South Vermillion School Corporation
Southwest School Corporation - Sullivan County
Vigo County School Corporation
Worthington-Jefferson Consolidated School Corporation

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

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INTRODUCTION

Psychological services are intended to aid the teacher, consultant, principal, parent and the child toward a better understanding of factors acting upon a child relevant to his adjustment in educational, personal or social experiences.

The diagnosis must involve an evaluation of a problem in all of its dimensions. The diagnosis must not only present a classification of performance levels but should develop recommendations in terms of expectancy levels and suggestions for relevant instructional materials to be used.

The desired services are those of psychological evaluation and instructional prescription development.

William J. Hamrick, Project Director and
Director of Pupil Personnel Services
Vigo County School Corporation

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Mrs. Laura Coffey, Psychological Consultant
Mr. John Hoare, Psychological Consultant
Mr. Wallace Smith, Psychological Consultant
Mrs. Norma Walker, Psychological Consultant

Special acknowledgment is given to:

Mr. Stuart Hart, Assistant Director of Psychological Services,
Office of the State Superintendent of Public Instruction.

Mr. Hart was formerly a psychometrist and assistant director of the Diagnostic, Counseling and Remedial Center of the Vigo County School Corporation and as such was directly responsible for implementing the services offered by this project.

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SECTION I

Need and Point of View

PSYCHOLOGICAL EVALUATION AND PRESCRIPTION DEVELOPMENT PROGRAM

Need for Services:

In meetings which took place during the school year 1968-69 between school superintendents in the eight county area served by the Wabash Valley Supplementary Educational Center, Personnel of that Center, and the Director of Pupil Personnel Service for the Vigo County School Corporation a consensus of opinion was reached that there exists a significant need for a coordinated program of psychological services.

There comes the day in every teacher's classroom when there is the realization that one or more members of that class seem incapable of responding with positive growth to the normal and usually successful procedures followed in that class. The problem may be related to one or a combination of disabling factors such as mental retardation, personal and social maladjustment, brain injury, perceptual motor malfunctioning, physical handicaps, and environmental handicaps. Confronted with such problems the average teacher will use a variety of techniques in attempting to remedy the situation and usually these techniques will be successful. If, though, improvement is not forthcoming what should be done? A professional teacher will in most instances seek the assistance of consultants. The educational consultants whose training and experience have been meant most directly to enable them to aid in helping exceptional children or children with exceptional problems are the school psychologist and school psychometrist.

In the counties to be served by this new program the psychological service personnel just named have either not been available at all or their services have not been available in sufficient quantity or in an organizational structure making it possible to meet the need for service.

The joint services project for which this handbook is intended is meant to not only remedy this situation but to create a program of a much more practical and effective nature than is generally the case where psychological services are readily available.

Point of View:

The following statements have been accepted as true by the staff of specialists employed to implement this program:

1. Human beings in general have the potential for helping themselves and others.
2. Programs which have used removal from the regular classroom and placement in a special segregated class as their sole or main method of handling children with problems have generally been unsatisfactory.
3. The regular classroom environment is capable of offering a growth-inducing program to the majority of those presently considered to be problem students.

4. The classroom teacher and the parents of a child are the most influential adults in his life space and the ones who are most capable of turning recommendations for helping him into practical prescriptions for action leading to satisfactory functioning on the part of that child.
5. Psychological personnel can be of more service to children if they do not spend the bulk of their time diagnosing problems and labeling children.
6. Psychological personnel can be of significant service to educators and parents in helping them develop prescriptions for helping children.

Agreement on these points led to the decision that a psychological evaluation and prescription development program would be most effective in accomplishing the goals of helping children if the psychological personnel in that program were mainly responsible for tasks reflecting support of these points. These tasks would include gathering and interpreting data relevant to a child's functioning, making recommendations for helping that child which follow logically from the interpretations mentioned and knowledge of child growth and development, helping educational staff members and parents turn those recommendations into practical prescriptions for action, and coordinating follow-up activities to ensure the success of the initial prescription or later modifications of the same.

It could be said that these are the main goals set for the psychological consultants in this program and should be said that these are very much in accord with original plans made for this program by Mr. William J. Hamrick, Director of Pupil Personnel Services for the Vigo County School Corporation.

The existence of primary goals does not eliminate the need for secondary goals and there are such. It is planned that the professionals working in this program will disseminate information about materials and techniques for helping to remediate and prevent problems to all educational staff members interested in such. It is planned that these same professionals will be available as consultants to those making decisions on such topics as curriculum, grading, and testing on a school system wide basis. It is planned that the consultants will help teachers take steps to modify the general atmosphere of their classrooms if teachers request such help.

The listing of secondary goals for service in this program can have no end and should change as conditions change.

SECTION II

Procedures and Forms

This section includes the procedures to be followed and the forms to be used in facilitating the accomplishment of the main purposes of the program as stated in the previous section.

Procedures:

1. The consultant will be in his assigned area on a set schedule in a mobile van which will function as his office and in which he will carry all the equipment and materials relevant to his services.
2. Decisions will be made by the superintendent and principals of a school system as to how much of the consultant's time shall be allotted to the various schools in a system on a regular basis. The schedule so determined will, of course, be open to modification when emergencies arise or no need is indicated in a particular school.
3. The consultant will have as his home base the Diagnostic, Counseling and Remedial Center in Vigo County which will also serve as a central depository for data.
4. There will be one telephone number at which he can be reached or at which information about where he can be reached will be available during his scheduled visits. This is basically meant to make him available in cases of emergency and for follow-up purposes. (812-234-4886 Extension 42)
5. The first step in making use of the consultant is to fill out a referral form in triplicate. (see section II on forms)
6. The referral form is to be given to the principal of the building in which it originated for completion and he will deliver 2 copies to his school system's coordinator assigned responsibility for the program.
7. The coordinator and the consultant will spend the first part of each visit rank ordering the current referrals according to need for services.
8. When acting on a referral the consultant will inform the school principal of initial steps to be taken which may be chosen from among the following:
 - a. Observation of the child in the classroom
 - b. A conference with the teacher and/or other staff members
 - c. A request for case history data from the parents
 - d. An interview with the child
 - e. Others
9. One or a combination of actions on the part of the consultant might lead to cooperative planning with staff members and/or parents for modifying the child's behavior or it might lead to a search for further data which would make the development of a prescription for helping the child more likely to succeed.
10. If the need for a formal psychological evaluation is in evidence the procedure will ordinarily be as follows:
 - a. Parents will be informed of the need for testing by the principal of the school and asked to complete a case history form (see forms included as the end of this section), if this has not already been done.

- b. When the necessary prerequisite data has been made available to the consultant the evaluation will take place.
 - c. A conference will be held on the consultant's next regularly scheduled visit with all adults needing to be informed of the results of the evaluation and needing to be participants in developing and carrying out a prescription for helping the child studied. Responsibilities for carrying out the prescription will be consensus designated at this conference and follow-up procedures will be determined.
 - d. A written report of the conference including a summary of the results from the evaluation and the agreed to prescription will be sent to the school principal to be kept in a confidential file and seen by others only at his discretion.
 - e. The effects of implementing the prescription will be evaluated by those responsible for it and a report, written or verbally communicated, will be given to the consultant according to a previously agreed to schedule.
 - f. If desired goals are not met by the prescription an evaluation of reasons for this will be made and the prescription will be modified until satisfactory results are obtained.
 - g. When goals are achieved, the conference report will be returned to the central data depository at the Diagnostic, Counseling, and Remedial Center and a note will be left in the child's cumulative folder by the principal to show that consultant services have been used during a specific period.
 - h. If the need arises for further help with the same child, a request for follow-up service by the consultant should be made by use of a follow-up form or by verbal communication.
11. The follow-up procedures, including evaluation of the effects of a prescription and modification of said prescription until success is gained, are to be used whether formal testing is or is not done.
 12. Recommendations made by the consultant for helping the child might include one or more of the following and any others which seem appropriate to a specific case:
 - a. That teachers, counselors, administrators, and parents provide various types of support for the child.
 - b. That behavior modification and/or prescription teaching techniques be used.
 - c. That instructional materials and/or procedures be modified.
 - d. That criteria for determining rewards and/or the nature of rewards given be changed.
 - e. That placement in a special class on a part or full-time basis be made.

- f. That presently unavailable or denied social, vocational, or recreational experiences be offered.
- g. That an academic tutor be retained.
- h. That a complete physical examination be made.
- i. That referral to other agencies and service personnel be accomplished.

FORMS

Elementary Referral Form,
Completed Example

Secondary Referral Form,
Completed Example

Elementary Case History Form

Secondary Case History Form

Consultant's Report (Example)

Follow-up Form,
Completed Example

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REFERRAL FORM
Elementary School

JOINT SCHOOL SERVICES

PSYCHOLOGICAL EVALUATION AND PRESCRIPTION DEVELOPMENT PROGRAM

REQUEST FOR CONSULTANT SERVICES - ELEMENTARY SCHOOL FORM

IDENTIFYING INFORMATION

PUPIL'S NAME Mary Jane Doe GRADE 2 TEACHER Miss Jones
First Middle Last

BIRTHDATE 1961 5 10 PRESENT SCHOOL East Side Elementary
Year Month Day
SCHOOL Vigo Co. Sch. Corp.

PRESENT ADDRESS R. R. 4 Terre Haute Vigo Ind. 47807
House Number and Street City County State Zip Code

NAMES OF PARENTS Mr. and Mrs. John Doe
And/Or
NAMES OF GUARDIANS _____

HOME TELEPHONE None BUSINESS TELEPHONE 696-2743

BACKGROUND INFORMATION

INTELLIGENCE TESTS
(Start With Most Recent Testing)

Name of Test	Form	Date Administered	Age of Child	Grade Placement at Time of Testing	Results in IQ & Mental-Age Form
SRA-PMA	K-1	10-3-67	6 rs. 5 mo.	1	75 I.Q. M.A. 4

STANDARDIZED ACHIEVEMENT TESTS

(Report Grade Equivalent Scores, Start With Most Recent Testing)

Name of Test	Date Adm.	Vocab-ulary	Reading Comprehension	Language Skills	Work-Study Skills	Arithmetic Skills

CHILD'S CLASSROOM ACADEMIC FUNCTIONING Mary's attention span is very short
but she responds to individual instruction. She does not seem to interpret
oral directions.

ATTITUDE OF CHILD:

TOWARD SELF She is critical of her own work.

TOWARD PEERS Mary doesn't play with peers and seems to act superior.

TOWARD SCHOOL ACTIVITIES She tries to do assigned tasks. Failure does
not seem to affect her.

TOWARD AUTHORITY She seems to do what I ask without questioning it or
without being resentful.

DESCRIBE THE 1, 2, or 3 BEHAVIORS (objectively, observable) Which You Consider
Most in Need of Change She lays her head on her desk when writing.
She mixes up the letters in words. She does not play with her peers.

OTHER FACTORS CAUSING REFERRAL Mary had a very low score on the group test
and the mother and I believe it should have been higher.

DESCRIBE 1, 2, or 3 BEHAVIORS OF A POSITIVE NATURE THAT THIS CHILD EXHIBITS _____
She responds to oral instructions.
She tries very hard to finish her work correctly.
She can understand meaning if you read material to her.

STEPS TAKEN PRIOR TO THIS DATE TO REMEDY PROBLEMS I have had a conference
with the mother and she helps Mary at home but this doesn't help her at school;
here she doesn't understand oral instructions and makes up letters in words.

SIGNATURE OF CLASSROOM TEACHER _____ DATE 4-

HEALTH, HEARING, SPEECH AND VISION INFORMATION

GENERAL HEALTH Good

VISION - DATE SCREENED 8-67 NORMAL: Yes No

Explain any defects _____

HEARING - DATE SCREENED 9-67 NORMAL: Yes No SPEECH-DATE SCREENED 2-67
NORMAL: Yes No

Explain any defects _____

ATTENDANCE - REGULAR: Yes No If not, give reasons She goes to Tennessee
with her mother because of the illness of a grandparent.

INFORMATION FROM RESOURCE PERSONNEL

(Here please have any support personnel who have information relevant to this child's functioning report such)

Nurse-Mary had a tonsillectomy in 1964; she had a pre-school physical exam
on 8-3-61. Mary needs dental care. Her mother states that she was diagnosed
as "epileptic" but later as "fever convulsion".

PRINCIPAL INFORMATION

SUMMARY OF FACTORS INVOLVED IN CHILD'S PROBLEMS SUCH AS PARENT ATTITUDES AND CHILD PAST AND PRESENT BEHAVIOR Mary's mother is cooperative and has tried to help
her at home. Both parents seem to have an over protective attitude.

COMMENTS AND RECOMMENDATIONS We would like to have her tested and suggestions
made for working with her in a classroom setting.

SIGNATURE OF PRINCIPAL _____ DATE 6-27-69

REFERRAL FORM
Secondary School

JOINT SCHOOL SERVICES

PSYCHOLOGICAL EVALUATION AND PRESCRIPTION DEVELOPMENT PROGRAM

REQUEST FOR CONSULTANT SERVICES - SECONDARY SCHOOL FORM

IDENTIFYING INFORMATION

PUPIL'S NAME James E. Jones GRADE 10
First Middle Last

BIRTHDATE 1954 3 23 PRESENT SCHOOL Green High School
Year Month Day SCHOOL SYSTEM Posey Co. School

PRESENT ADDRESS 1218 Sycamore Greenfield Posey Ind. 67809
House Number and Street City County State Zip Code

LIST LAST THREE SCHOOLS ATTENDED Central Elementary--Posey County; Scott Junior
High--Posey County.

NAMES OF PARENTS Mr. Ralph Jones
and/or
NAMES OF GUARDIANS _____

CHILD LIVES WITH Mr. & Mrs. John Brown RELATIONSHIP Grandparents

TELEPHONE 278-3281 BUSINESS TELEPHONE ---

HEALTH INFORMATION

GENERAL HEALTH Poor

VISION - DATE SCREENED 2/15/69 NORMAL: Yes No WEARS GLASSES: Yes No

HEARING - DATE SCREENED 2/15/69 NORMAL: Yes No

SPEECH: ADEQUATE INADEQUATE RECEIVED THERAPY: Yes No

COMMENTS AND RECOMMENDATIONS RELEVANT TO HEALTH INFORMATION Slight hearing
loss. James should be seated near the front of the room or near where
the teacher usually is when speaking to the entire class.

ATTENDANCE INFORMATION

ATTENDANCE: Regular: Yes No If not, give reason Note from parent in-
dicates that he is ill in the morning: many of absences are morning only.

PUPIL'S NAME James E. Jones

GUIDANCE PERSONNEL AND TEACHER COMMENTS
(Must accompany all referrals)

COMMENTS BY EACH CLASSROOM TEACHER (Comments should be related to the student's attitude toward work and authority figures, his subject matter accomplishment, peer group relations, outstanding strengths and weaknesses)

SUBJECT AND TEACHER

COMMENTS

Mr. Doe English IV	D	I have had no difficulty with James. When I do ask him to stop talking or go to the board he always does as I ask; he does seem to try to finish work, but the quality of work is poor. He is a loner.
Mr. White Algebra II	F	James does not seem to understand algebra; he completes about half his work and this is incorrect. His attitude is poor toward work and me. He has no friends. He has never refused to do his work.
Miss West World History II	D-	James does not like history and usually completes about half his work. He refuses to work in small groups and he was very hostile when I made him sit with the small group. He definitely needs more help than my class can give him. His greatest weakness is his attitude and greatest strength
Mrs. Cravet Spanish II	C-	James is a little below average but seems to like the subject matter and he has always been very pleasant to me. He has no friends in class and he hasn't joined our club.
Physical Education	Mr. Arel	James has refused to dress for gym all year so he just sits in the bleachers. The boys in the class do not like him and he doesn't seem to want to be a part of their group.
Homeroom	Miss Fine	Jim usually spends his time in homeroom studying by himself. He causes no disturbance and fulfills any request I make.

GUIDANCE COUNSELOR

MENTAL ABILITIES TESTS - MEASURED FUNCTIONING
(Begin With Most Recent Test)

Name of Test	Form	Date	IQ	CA
SRA Primary		10-8-59	125	3-11
SRA PMA	7-11	10-4-62	115	8-1
		3-69	106	

STANDARDIZED ACHIEVEMENT TESTS

List grade equivalent scores for the 4 most recent group tests

Name of Test	Date	Form	Vocabulary	Reading Comp.	Arith. Skills	Work-Study Skills	Other be Specif
Iowa	1-67		9.8	10.4	10.1		Lang. Total 10.4

EXTRACURRICULAR ACTIVITIES None

SUMMARY (To include statement of problem, behaviors most in need of change, behaviors of a positive nature, previous attempts to meet special needs, and report parent and any outside agency involvement)

James has been into see me many times at teacher's requests; never voluntarily.

If I make an appointment with him, he keeps it. He doesn't relate well to peers and has indicated he would like to have a better relationship with the other boys. He is very concerned about his poor achievement; and his parents have indicated to me that they feel he should be doing better and that he seems particularly unhappy with his history class.

PRINCIPAL'S COMMENTS The boy's parents have been in three times and they have requested special help for James. They will complete a case history form and will assist with recommendations.

SIGNATURE OF PRINCIPAL _____

DATE 6-2-69

CASE HISTORY FORM
Elementary School

JOINT SCHOOL SERVICES

(Elementary Form)

PSYCHOLOGICAL EVALUATION AND PRESCRIPTION DEVELOPMENT PROGRAM

MAIL TO: _____ PRINCIPAL _____ SCHOOL _____
ADDRESS _____

CASE HISTORY

(This report is to be completed by the parent or guardian)

Name of Child _____ Sex _____ Birthdate _____
First Middle Last Yr. Mo. Day

Address _____ Telephone No. _____

School _____ Grade _____ Teacher _____

Child lives with _____ Relationship _____

Family Physician _____ Date of last examination _____

Has the child been to a physician for the problem now being referred? _____
Clinic? _____ Hospital? _____ Other Agency? _____
If so, give name and dates summarizing report on back of this form

Is the child's speech understandable by parents? _____ by strangers? _____
Comments _____

Do you suspect a hearing loss? _____ Comments _____

Do you think his vision is normal? _____ Comments _____

Do you suspect mental ability to be low? _____ average? _____ superior? _____
Comments _____

Is child physically handicapped? _____ Comments _____

Do you consider the child's school achievement as poor? _____ average? _____
superior? _____ Comments _____

Do you consider the child a discipline or behavior problem? _____ Comments _____

Home
Father's Name _____ Occupation _____
Place of Employment _____
Mother's _____ Occupation _____
Place of Employment _____
Parents living together? _____ Separated? _____ Divorced? _____ Widowed? _____

Comments: _____

Others living in the home

Name	Age	Relationship	Comments

RECREATION AND PLAY FACILITIES

Where does he play: Own yard? _____ Playground? _____ Neighborhood? _____

Playmates: Younger _____ Near own age _____ Older _____ Same sex _____
Opposite sex _____ Both sexes _____ Several _____ Some _____ None _____

Playthings: Many _____ Few _____ None _____
Does the child care for playthings: _____

Television: Viewing habits would be described as: Habitual _____ Often _____
Some _____ Selected programs _____ None _____

Special Instruction: Does the child take music lessons? _____ Instrument? _____
Dancing lessons? _____ Other? _____

SCHOOL HISTORY

Did the child attend kindergarten? _____ Age entered first grade? _____

Number of schools attended? _____ Has attendance been regular? _____

If not, what seems to be the problem? _____

Have any grades been failed? _____ Skipped? _____ If so, how many? _____
Grades failed _____ Grades skipped _____

Have marks before this year been low? _____ Average? _____ Above average? _____

Have marks this year been low? _____ Average? _____ Above average? _____

List subjects especially difficult for child _____

Has the child received any special help this year? _____ before this year? _____
In speech? _____ hearing? _____ vision? _____ reading? _____
personal adjustment counseling? _____ special class? (Name) _____
Others? _____

If so, who helped? Psychometrist? _____ Teacher? _____ Speech Therapist? _____
Principal? _____ Consultant? _____ Guidance Clinic Specialist? _____
Counselor? _____ Parents? _____ Nurse? _____ Home Visitor? _____
Others? _____

How often? _____ How long? _____

Explain _____

DEVELOPMENTAL FACTORS

Evidence of injury at birth? _____ Weakness at birth? _____
If so, comment: _____

Growth:
Was feeding ever a problem? _____ If so, when? _____
In what way? _____
Has the child gained normally in weight? _____ Height? _____
Age of sitting alone? _____ Crawling? _____ Walking alone? _____
Does coordination now seem awkward? _____ Normal? _____ Excellent? _____

Language Development:
Did the child "babble and coo" during the first ten months? _____
Age for using single words? _____
Age for using short sentences understandable by parents? _____
Others? _____

Social Development:

Does the child control bladder? _____ Daytime _____ Nighttime _____

Comments: _____

Would child rather play alone? _____ With others? _____

With younger children? _____ Same age? _____

Older children? _____

Does the child earn money? _____ If so, describe briefly _____

Has the child been in trouble with the neighbors? _____ Authorities? _____

MEDICAL HISTORY

Diseases, injuries, operations, and unexplained high fevers (list in order of occurrence)

TYPE	DATE	AGE	SEVERITY AND EFFECTS	PHYSICIAN

;

CASE HISTORY FORM

Secondary School

JOINT SCHOOL SERVICES

PSYCHOLOGICAL EVALUATION AND PRESCRIPTION DEVELOPMENT PROGRAM

MAIL TO _____ PRINCIPAL _____ SCHOOL
ADDRESS _____

CASE HISTORY

(This report is to be completed by the parent or guardian)

Name of Pupil _____ Sex _____ Birthdate _____
First Middle Last Yr. Mo. Day

Address _____ Telephone No. _____

School _____ Grade _____

Lives with _____ Relationship _____

Family Physician _____ Date of last examination _____

Has he/she been to a physician for the problem now being referred? _____
Clinic? _____ Hospital? _____ Other Agency? _____
If so, give name and dates summarizing report on back of this form

Is his/her speech understandable by parents? _____ by strangers? _____
Comments _____

Do you suspect a hearing loss? _____ Comments _____

Do you think his/her vision is normal? _____ Comments _____

Do you suspect mental ability to be low? _____ average? _____ superior? _____
Comments _____

Is he/she physically handicapped? _____ Comments _____

Do you consider his/her school achievement poor? _____ average? _____
superior? _____ Comments _____

Do you consider him/her a discipline or behavior problem? _____ Comments _____

HOME

Father's Name _____ Occupation _____

Place of Employment _____

Mother's Name _____ Occupation _____

Place of Employment _____

Parents living together? _____ Separated? _____ Divorced? _____ Widowed? _____

Comments: _____

Others living in the home

NAME	AGE	RELATIONSHIP	COMMENTS

RECREATION

What nonschool interests does the pupil have? (hobbies, clubs, sports, etc.)

Friends: Younger _____ Near own age _____ Older _____ Same sex _____
Opposite sex _____ Both sexes _____ Several _____ Some _____ None _____

Does he/she have access to the use of a car? _____ How often? _____

Does he/she take responsibility for any of its maintenance? _____

Television: Viewing habits would be described as: Habitual _____ Often _____
Some _____ Selected programs _____ None _____

Special Instruction: Does he/she take music lessons? _____ Instrument? _____
Dancing lessons? _____ Other? _____

SCHOOL HISTORY

Did he/she attend kindergarten? _____ Age entered first grade? _____

Number of schools attended? _____ Has attendance been regular? _____

Have any grades been failed? _____ Skipped? _____ If so, how many? _____
Grades failed _____ Grades skipped _____

Have marks before this year been low? _____ Average? _____ Above average? _____

List subjects especially difficult: _____

Has he/she received any special help this year? _____ before this year? _____
In speech? _____ hearing? _____ vision? _____ reading? _____
personal adjustment counseling? _____ special class?(Name) _____
Others? _____

If so, who helped? Psychometrist? _____ Teacher? _____ Speech Therapist? _____
Principal? _____ Consultant? _____ Guidance Clinic Specialist? _____
Counselor? _____ Parents? _____ Nurse? _____ Home Visitor? _____
Others? _____

How often? _____ How long? _____

Explain _____

DEVELOPMENTAL FACTORS

Evidence of injury at birth? _____ Weakness at birth? _____
If so, comment? _____

Physical Development: Describe any abnormalities in early growth patterns
(eating, walking, talking, coordination, etc.)

Social Development:

At what age did he/she control bladder? _____ Daytime _____ Nighttime _____

Comments: _____

Would he/she prefer to be alone? _____ With others? _____
Younger? _____ Same age? _____ Older? _____

Does he/she have routine responsibilities? _____ If so, describe briefly

Does he/she earn money and/or receive an allowance? _____ If so, how does
he/she spend it? _____

Has he/she been in trouble with the neighbors? _____ Authorities? _____
If so, describe briefly _____

Describe present dating practices: (age of first date and frequency of
dates)

MEDICAL HISTORY

Diseases, injuries, operations, and unexplained high fevers (list in order
of occurrence)

TYPE	DATE	AGE	SEVERITY AND EFFECTS	PHYSICIAN

WORK HISTORY

Part-time and full-time, school term and vacation

TYPE OF POSITION	EMPLOYER	DATE OF EMPLOYMENT	REASON FOR TERMINATION

CONSULTANT'S REPORT

JOINT SCHOOL SERVICES

PSYCHOLOGICAL EVALUATION AND PRESCRIPTION DEVELOPMENT PROGRAM

PSYCHOLOGICAL CONSULTANT'S REPORT

NAME: Mary Jane Doe
R. R. #4
Terre Haute, Indiana

DATE OF TEST: September 16, 1968

SCHOOL: East Side Elementary School

DATE OF BIRTH: May 10, 1961

AGE: 7 years, 4 months

GRADE: 2

PARENTS: Mr. and Mrs. John Doe

TESTS AND TECHNIQUES

Binet Intelligence Scale
Bender-Gestalt Test
Gray Oral Reading Test
Dolch Basic Sight Word Test
Early School Personality Questionnaire

CONSULTANT'S FINDINGS AND CONCLUSIONS

Intelligence Factors

Results of the Binet Intelligence Scale indicated Mary to have mental ability within the average range. Certain areas of the Binet show that she is having considerable difficulty reproducing what she sees.

Perceptual-Motor Factors

On the Bender Test, Mary Jane's perceptual age level was shown to be below that of a 5 year old or kindergarten student. Neurological malfunctioning was indicated in her efforts by 13 significant and 1 highly significant errors plus excessive time taken to complete the designs, which can be considered as compensating behavior for those with problems in this area.

Achievement Factors

The Gray Test and Dolch List were used to evaluate oral reading functioning and the Durrell was used to investigate specific hinderances to reading progress. Mary Jane was found to be functioning at the beginning 1st grade level in her oral reading. She reads very slowly, requires much aid, loses her place, and knows less than 30% of the words that make up 70% of the words in 1st grade readers. Her responses reveal many substitutions of look alike words, she has developed almost no

(MORE)

facility for visually memorizing words, she is confused by letters which are near reversals of each other (b for d, p for q), and her phonic skills amount to knowing the sounds of only a few letters which she recognizes singly as the first letter in a word. She was unable to learn the sounds of the letters m, s, and f when given the opportunity. Her comprehension is surprisingly good even for selections which she finds very difficult to read and when they are read to her she comprehends easily on a 3rd grade level.

Personality Factors

Results of the Children's Personality Questionnaire, indicated that Mary Jane is struggling between the opposing need to become more independent, literally grow up, and the need to maintain her strong dependence on her mother and the protection it affords. There are indications of her feeling inadequate, possibly inferior at times, while desiring to project the image of superiority accompanied by a care-free and careless attitude. Defense against these feelings of inadequacy appears to have been found through assuming a somewhat critical attitude toward her peers and attempting to identify material well being as a sign of superior position.

Conclusions

Mary Jane has average mental ability but emotional immaturity and perceptual difficulties are interfering with academic growth. When the evidence of perceptual-motor developmental lag or dysfunction plus the signs of emotional stress are considered, her poor school achievement is understandable.

Some of Mary Jane's problems in emotional areas appear to be related to her feelings about her home environment and its relationship with the outside world.

REACTIONS TO RESULTS

Miss Jones pointed out that Mary Jane was frequently absent, and that this factor also contributed to her poor school achievement. Mrs. Doe explained that Mary Jane's poor attendance was due to fear and anxiety about school.

There was a general agreement that some of Mary Jane's problems seem to be related to her feelings concerning her home environment and the outside world.

PRESCRIPTION FOR CHANGE

A review of test data and other information made available by those participating in the conference suggests family counseling of a nature which would help support Mary Jane in her efforts toward improvement.

Since there is evidence of a possible neurological dysfunction, it is suggested that Mary Jane have a complete visual, physical, and neurological examination in the near future.

It is also recommended that the psychological consultant and classroom teacher devise a program to improve those academic skills appropriate to the perceptual-motor levels of functioning exhibited. This program should include instruction in the physical/personal, 3 dimensional object, and 2 dimensional paper and pencil exercises necessary to improving her level of perceptual motor functioning.

(MORE)

School attendance could be improved by establishing some variety of reinforcement schedule at school to reward Mary Jane for coming regularly. The rewards should be made relevant to her expressed desires. Material rewards of consequence can be used if these are what Mary Jane will respond to.

ACCEPTED RESPONSIBILITIES FOR IMPLEMENTING PRESCRIPTION

Miss Jones, Mr. Miller, and the psychological consultant will plan and provide family counseling with both parents.

Miss Jones and the psychological consultant will be responsible for establishing a program for improving perceptual motor functioning and personal/social adjustment.

PLANS FOR FOLLOW-UP PROCEDURES

The psychological consultant will meet with Miss Jones and Mr. Miller on November 9, 1969 in order to discuss results derived from prescription for change.

FOLLOW-UP FORM

PSYCHOLOGICAL EVALUATION AND PRESCRIPTION DEVELOPMENT PROGRAM

TEACHER REPORT OF PRESCRIPTION RESULTS
FOR Mary Jane Doe

I. Changes Effected

A. (Child Behavior)

Mary has developed a greater self-dependence in both the social and emotional areas of development. She is able to maintain a longer attention span which has increased her ability to cope with the academic setting.

B. (General Classroom Atmosphere)

Since Mary has developed more self-confidence she is now more acceptable socially and this helps to create a more harmonious atmosphere.

II. Teachers Reaction to Prescription:

The behavior modification technique used has given me an extremely useful tool in dealing with children with learning disabilities.

III. Related Problems to Implementation of Prescription:

1. Mary is developing more self-confidence; however, I am afraid of a possible over-reaction taking place.
2. I am worried about the class reaction to the token system I am using with Mary.
3. I have had to spend more time using this method; however, the results are proving very beneficial.

IV. Involvement or Statements of Others Involved:

As I accepted the total responsibility of implementing the program there are no other individuals involved.

- V. Do you desire further consultation Yes X No . If yes, please suggest a date which would be in accord with the generalist's visiting schedule and make any comments relevant to preparing for a meeting.

DATE(8-17-69)

TIME(8:00)

Teacher's Signature

8-12-69
Date

East Side Elementary
School

SECTION III

The Child, Theories of Development

The Child

Children are enrolled into school on the basis of the chief measure of growth which is the child's chronological age. The curricular structure of our school programs is based essentially upon this classification. The compulsory attendance age in Indiana is seven years but most children are enrolled in school programs at five or six years of age. The instructional groupings of our school systems are not based upon the year to year relationship of age growth but are based upon larger age groupings. The general structure of the school programs imply that we must not adhere too closely to age by age classification but allow for individual differences within groups. The following periods of growth present fairly broad divisions:

<u>Name of Periods</u>	<u>Approximate Age</u>
Early Childhood	From 1 to 6 years
Middle Childhood	From 6 to 10 years
Later Childhood	From 10 to 13 years
Puberty	Average for girls; 12 years Average for boys; 14 years
Early Adolescence	From 13 to 15 years
Later Adolescence	From 15 to 20 years
Maturity	Beyond age 20

In order to better understand the complexity of needs in providing services in the school we must look critically at the growth patterns of the child.

Henry W. Maier has presented in his book, Three Theories of Child Development, 1965, the contributions of Erick H. Erickson, Jean Piaget, and Robert Sears. Erickson described eight developmental stages with the first five encompassing infancy, childhood, and adolescence. The first five phases are: (1) sense of basic trust, (2) sense of autonomy, (3) sense of initiative, (4) sense of industry, and (5) sense of identity. The first two phases would involve ages one through five therefore the discussion will be limited to phases three, four, and five.

Erickson:

Sense of Initiative: The first step the child must master is to become his own "parent" by supervising himself in the stead of his parents. The child at this stage begins to rely upon the development of his conscience in order to regulate his behavior. Erickson has pointed out that as the child develops communicative skills, speech represents much more than communication; it involves assuming a particular position upon an issue or towards a situation and a verbal commitment to that position. As the child develops his self-identity he also includes his mistrust, doubts, fears and other conflicts.

During this stage the child faces a period of energetic learning. The child associates much of the time with children his own age and above all else sees himself-he learns, associates and experiences as a boy or as a girl. The child grows physically and psychologically and becomes himself.

Sense of Industry: Erickson has generalized that at this stage the major theme reflects the child's determination to master what ever he is doing. Erickson has expressed the polarity of this phase as a sense of industry versus a sense of inferiority. The child has an abundance of energy to invest all his efforts in producing. Opposing this is the existence of a pull toward a previous level of lesser success or production. Roughly between the ages of 7 to 11, the child tries to resolve these fears of inferiority. He attempts to use his opportunities to learn by practicing and mastering those skills required by his culture.

Sense of Identity: As it was essential in the infant to acquire a sense of trust in order to branch out into new childhood experiences so is it important for the adolescent to acquire a sense of identity in order to branch out and make decisions in adulthood. Maier has pointed out that in establishing his identity the youth's concerns revolve around the question, "Which way can I be?" He seldom inquires: "Who am I?" Because his identity depends upon his becoming his identity.

Piaget:

Piaget's developmental theory has been divided into a three level continuum:

1. The sensori - motor phase, (roughly, ages: 0-2)
2. The period of preparation for conceptual thought (roughly, ages: 2-11/1)
3. The phase of cognitive thought (roughly, ages: 11/12 and up).

The discussion presented will deal primarily with Piaget's theories as related to the school age child.

The Phase of Initiative Thought: The child between the ages of 4 to 7 years of age is widening his social interest and awareness in the world around him. When the child first enters school his thinking is largely the verbalization of his mental processes. The young child uses his motor apparatus to act out his thinking process but as the child entering school he now uses his speech to express his thinking. His thinking is largely egocentric. He perceives and interprets things in his environment as colored by his personal preconceptions, and is generally at variance with the thinking of his elders in the real world. He also deals primarily with only one idea at a time. The child of this stage is still incapable of thinking in terms of the whole; he is preoccupied with the parts.

At this level of development the child has the prevailing moral code of obedience to adults. A child in this phase regards all adult action as being fair. The child gradually gives way to his unilateral respect for adults as he becomes aware of the many adult authorities whose rules vary, and to the inconsistencies even within one adult's rules.

The phase of concrete operations: The child of ages 7 to 11 of age achieves a new level of thought; namely operational thought. Operational thought refers to the ability of the child to perceive and relate experiences to an organized whole. The child at this level is able to conceptualize time. He is now able to consider several points of view simultaneously and of returning each time to an original state. The child can explore several solutions to a problem and accept or reject because he can always return to his original view.

Maier has stated that in general children from ages of 9 to 12 are interested in rules which will regulate their mutual activities. The child desires a sense of equality and a carry over into concepts of fair punishment. The preadolescent age child insists upon a shift in emphasis, from the complete acceptance of adult authority to respect from the peer group and standard

The Phase of Formal Operations: Between the ages of 11 and 15, childhood ends and youth begins. The intellectual and thought process develops to the point of thinking beyond the present, formulating theories about everything. The youth is now capable of thinking and reasoning beyond his own every day world and beliefs. He is now able to enter into the world of thoughts and ideas.

Sears:

Sears has presented the theory of Secondary Motivational Systems: By the time the child is ready to enroll in school he has acquired a system of behavior which will guide him for limited periods in the new world outside of his family. The young child, usually, has become strongly identified with the parent of the same sex. His identification continues with models which are desirable at least in terms of the child's needs. Sears has generalized that all acquisitions of later value judgements are based on the child's incorporation of his parent's behavior and what he has learned from his parents.

In order to view the child more thoroughly we must consider aspects other than the personality social development and thought processes of the child. There must be concern and understanding of the physical growth pattern. By middle childhood (6-10 years) growth has begun to slow down. William C. Olson has stated in his book, Child Development, that by the time the child has reached middle childhood the genital system has now attained 19 percent of its adult size, the body as a whole about 42 percent, the brain and the nervous system about 90 percent, and the lymphoid system about 90 percent. The body continues to grow during middle childhood but the increment of change per unit of time is small.

Later childhood (10-13 years) is marked with very rapid growth and by the appearance of secondary sex characteristics.

The following listing is an attempt to summarize certain generalizations concerning child growth and development; (References; Lane and Beauchamp, Understanding Human Development; Millord's, Child Growth and Development; Mussen and Conger, Child Development and Personality; Olson's, Child Development).

Early Elementary Childhood (5-8)

Growth has slowed down

Able to feed and dress himself (5-6)

Handedness established (5)

Laughs and cries easily

Loving one moment, aggressive next, ambivalent

Susceptible to quick outbursts

By six the girl is twelve months more mature than the boy

At six, "toothless gapers"

Permanent, oversized teeth - (8-12)

Group play begins (7-8) cooperative stage
Peer group acceptance based on skill in games
Assumes more responsibility for health habits
Play becomes ritualistic (7-9)
Play with secret language (begins 5-8)
Sex role becomes established (5-7)
Consistently interested in babies
Muscles and nerves ready for writing (5-6)

Middle Years of Childhood: (9-12)

Togetherness is the most dominant characteristic
Physical skills are more important than they ever will be again
Boys like to talk about sex
Girls just as interested in sex but talk less
Rapid growth period for some children
Adult admonitions are more likely to be ignored than directly challenged
Tremendous appetites
Boys take a semblance of hating girls
Boys assume attitude of superiority by virtue of strength
Little purpose for gangs (8-9)
Social life begins to be activity oriented (11-12)
Have outgrown the unquestioning faith that the teacher is always right
Girls are more concerned with form and verbal imagery than boys
Clubs serve as place for girls to practice their verbal powers
Girl's Clubs are more exclusive than boy's gangs
Girls in middle grades like "mushy" movies and romantic shows on T.V.
Girls in middle years are notorious for note writing
Middle years seem to be the optimum time for humanizing
The child can distinguish between reality and fantasy
Middle year child is a collector of facts
They seek to be fully in charge of their lives

SECTION IV

Behavior Modification and Reinforcement Theory

REINFORCEMENT THEORY

BEHAVIORAL PRINCIPLE:

Behavior is controlled by its immediate consequences; if behavioral change is desired, manipulation of the environment to create consequences that will produce the desired behavior is necessary. In order to create, maintain, strengthen, weaken, alter or eliminate a particular behavior, one must set up strong reinforcing consequences to the behavior that is desired. The most important consequence is positive reinforcement

BEHAVIOR MODIFICATION VOCABULARY

A. Respondent Conditioning (Reflex):

Pairing a stimulus (such as a bell) with a natural or reflex response (salivating when food is placed in mouth) eventually causes the stimulus alone to cause the response (bell eventually causes salivation without the presence of food and is called a "conditioned stimulus"). The stimulus preceding the response is the event of concern.

1. Extinction:

Conditioning does not always produce permanent results. If the conditioned stimulus (the bell) is presented frequently in the absence of the unconditioned stimulus (food), it loses its ability to cause a response (salivatory).

B. Operant Conditioning:

Consequences of behavior are the important events looked at in operant behavior. This behavior "operates" on or affects the environment in some way. When a response is followed by a reward or "reinforcement" the frequency or probability of its recurrence increases—where reward refers to any event that satisfies or "reduces" an existing need or motive, such as food to a hungry animal. When a reward no longer follows, the response rate tends to return to the preconditioning level (extinction). A hungry rat is put in a box that contains a lever connected to an automatic magazine that delivers food pellets whenever the lever is pressed. The rat runs around restlessly, until somehow he presses the bar. A food pellet (reinforcement) follows and he eats it. Soon he repeats the performance, and in a short time he is pressing the bar continuously. If the magazine is now disconnected, the rate of bar-pressing decreases and finally ceases, or almost ceases. Extinction has occurred just as in respondent conditioning. (This process is known as operant conditioning, in that the response operates on the environment—bar-pressing.) There are three main classes of events affecting operant behavior (which includes most of our voluntary responses).

1. Positive Reinforcers:

One can strengthen and accelerate desired behavior by using rewards or "positive reinforcers." Positive reinforcers of biological significance are food, water, and physical contact. Positive reinforcers of acquired significance are praise, grades, money, etc.

2. Negative Reinforcers; or Aversive Stimuli:

Behavior which preceded their removal is more likely to occur under similar conditions in the future. Common aversive stimuli are those we call painful or unpleasant, such as extreme heat or cold, blows, distortions of inner organs, as in stomach ache, loud sounds, bright lights. Another class of aversive stimuli are those whose properties are acquired during our lifetimes, such as social disapproval, criticism, nagging, threat. When a response is followed by punishment, the frequency of recurrence decreases—where punishment is any event that runs counter to the existing set of motives, e.g., pain. Again, when punishment is withdrawn, the rate tends to recover. (One gains suppression of behaviors, but not changes, per se). Punishments, when compared with simple non-reinforcement, appear mainly to accelerate the decline in response rate rather than to extinguish it. When punishment is discontinued, subjects catch up with those subjects extinguished through nonreinforcement alone. When rats were slapped for making a previously reinforced response, the rate of response slowed, but eventually complete recovery was made when punishment was removed. Depressing the frequency of a response through punishment is not the same as extinguishing the response through repeated, unreinforced trials; slapping the child for approaching the cookie jar is not the equivalent to removing the cookies. In punishment, then there is active learning to avoid; the tendency to respond may persist at the same level, overcome for the moment by the tendency to avoid. This distinction is of practical significance in the control of behavior. If we are interested in permanent behavior change, finding alternate behaviors that one can positively reinforce is more important than just suppressing a negative response.

3. No Consequence and Neutral Stimuli:

Responses cease if followed by no consequence or by neutral stimuli. Allowing behavior to occur without reinforcement (ignoring) is called operant extinction and is contrasted with respondent extinction in which one allows a conditioned stimulus to occur (bell ringing) without pairing it with an unconditioned stimulus (food). What constitutes a reinforcer for a particular organism is a key observation to make.

4. Conditioned Reinforcers:

Some consequences become reinforcing to certain behaviors as a result of experience. An event can become reinforcing simply by being paired with another reinforcer. To increase the occurrence of a particular class of behavior it is necessary only to insure that reinforcement occurs relatively soon after the behavior.

5. Superstitious Behavior:

When a reinforcement follows a behavior, even though the behavior did not produce it or cause the reinforcement, it is called accidental reinforcement. Behavior developed as a result of accidental reinforcement is referred to as superstitious behavior (study with pigeons).

6. Shaping:

To produce new behavior it is sufficient to use the principle of "successive approximations" to some behavior goal. For example, in teaching a child to talk, his efforts to pronounce a particular word will at first be reinforced rather uncritically. Eventually, some sound will resemble a word more than others and receive selective reinforcement, while others, not so close, will be allowed to extinguish. This has the effect of producing sounds closer and closer to the correct pronunciation. This procedure for producing new behavior is called shaping. Animal trainers use it to produce unusual and entertaining behaviors. Humans use it to acquire speech, athletic abilities and other motor skills.

7. Generalization:

Behavior is related to previously reinforced responses. Thorndike has stated it thus: "To any new situation man responds as he would to some situation like it, or like some element of it." An example of generalization from Pavlov's laboratory may be helpful. A dog was conditioned to salivate at the sound of a 1000-cycle tone. When the response had been well established to this tone (the only one used during training) a number of other tones were tested for their effect upon the dog's salivation. Without exception, they elicited the response, although to a lesser degree than had the original tone. The stimuli "generalized," that is, the dog responded to all of them in the same way, except in the amount of saliva secreted. Tones that were near in frequency to the conditioned stimulus produced, in general, more salivary flow than tones that were further away on the frequency scale. So, we may say that when an operant or a respondent has been conditioned in one stimulus situation, it may then be evoked, without further conditioning, in another stimulus situation. The power of the new stimuli to evoke the response will depend upon the physical features that the situations have in common. In everyday life, examples of generalization are so common that they go unnoticed. They are most obvious in children where they are often amusing. Parents smile at the child who calls out "doggie," at the sight of a horse, a cow, or some other four-legged creature. Stimulus generalization had many implications. The advantage, which usually outweighs the disadvantage is the training in one situation enables people to respond appropriately in other similar situations--on various typewriters, in other cars, to differential pronunciations of the same language. On the negative side, there is the possibility of responding inappropriately when stimuli are similar but not the same, whenever appropriate discrimination had not occurred, as with the difficulty encountered in learning foreign words with familiar sounds but different meanings. Others more serious misgeneralizations may include a fear of all animals after being bitten by one; fear of all males or females or authority figures as a result of generalizing from a particular individual.

8. Discrimination:

How does it come that people make distinctions between things that they do

Why are we able to distinguish not only between dogs and other quadrupeds, but between several breeds of dog? And why can a dog-fancier recognize many more differences than we can? Such questions can be explained by the principle of discrimination. The dog, in Pavlov's laboratory, conditioned to salivate when a 1000-cycle tone is sounded, will also salivate because of generalization to tones of other frequencies. But, if these other tones are presented again and again without being followed by food, and if reinforcement continues to accompany the 1000-cycle tone, the time will come when they no longer elicit salivation, although the 1000-cycle tone continues to do so. Discrimination theory has led to involved studies of perception. Thousands, perhaps hundreds of thousands of discriminations must be made by each of us in meeting the requirements of the world about us. The child learns to discriminate because we give reinforcement in the presence of one stimulus and withhold it in the presence of another. In a now famous experiment Pavlov once trained a dog to discriminate visually between a circle and an ellipse. Then step by step, he brought the ellipse closer and closer to the shape of the circle. Ultimately the discrimination broke down, as you would expect. With continued demands upon his powers, the dog finally became "neurotic," to the degree that he had to be removed from the experiment and given a long rest for the sake of his health. Similarly, in another Russian experiment a six-year-old child was compelled to distinguish successively between metronome beats of 144 per minute and beats of 92, 108, 120, and 132 beats per minute; the distinction was made readily, in very few trials. But trouble began when 144 was compared with 120 beats per minute; and when the final discrimination between 144 and 132 beats per minute was attempted, the child became seriously upset, showing extreme rudeness, disobedience, excitement, and aggressive behavior, as well as sleepiness in the experimental situation.

Additional Principles Connected With Operant Conditioning Include:

1. Not only do rewards have reinforcing properties, but so does any other stimulus that has led to reward in the past or has merely been associated with it. In short, neutral stimuli can acquire reinforcing properties by the laws of classical conditioning; and the same holds for negative reinforcement. A child who is avoiding reading because of many failure experiences in this area, may be counter-conditioned by playing a game of reading where candy or toys are to be won, (pairing of pleasant with unpleasant).
2. Operant conditioning, like respondent conditioning, can occur automatically and without awareness. It does not depend on conscious striving for the reward, or even on awareness of any connection between the behavior and its consequences. In short, responses, including verbal ones can be taught and extinguished by differential reinforcement without the knowledge of the subject himself. For example, a number of studies illustrate that the content of ordinary conversation can be modified without the subject's awareness, by such secondary reinforcers as a nod, a smile, or expressed agreement regularly applied to arbitrarily selected classes of words or sentences.

BEHAVIOR MODIFICATION

A Brief Summary for Teachers

(Information presented at the 1969 Summer Harvard Institute, Pupil Personnel Services, Dr. Jack Monderer, Leader.)

A body of knowledge is continually being developed in psychological research under the general heading of Reinforcement Theory which has relevance and usefulness for teachers and parents. These principles and hypotheses are increasingly being used both in actual work with children, and in consultation with their parents and teachers. It would seem useful for teachers to have a brief discussion of these concepts and principles to which they can refer following consultation.

This Summary is in no way exhaustive, nor is it a substitute for more complete presentations of the theory; other sources should be read for more detailed discussions and for the research findings that underlie the current ideas in behavior and learning theory (see Related Readings at the end of this section).

Certain considerations should be kept in mind. First, reinforcement theory, being a theory, is an attempt to account for all learned behavior; its use, therefore, must always be predicted as a hypothesis based on a theory. Behavior is a complex matter and much more research is needed and is being done. Second, the theory concerns itself with observable behavior and does not, at this point, explicitly take into account other human events that are not observable (cognition, for example). The current thinking, however, that the behavior or actions of children have an effect upon their general development, including intellectual, makes a study of behavior and methods of modifying it of even greater importance.

Finally, reinforcement theory makes no assumptions as to values. That is, how one has learned to act in a certain way may be accounted for by the theory, but whether it is "good" or "bad" behavior is a value judgment. Stated in another way, learning theory may give direction as to how one can modify behavior; whether it should be modified and toward what kind of behavior, however, are again value judgments and become the ethical responsibility of those who have influence over the behavior of others.

Knowledge of how behavior is learned and modified gives us both a basis for educational and childrearing practices and an understanding of and defense against unethical attempts at behavior manipulation.

General Principles

Education, including childrearing practices, involves the teaching of certain kinds of behavior or actions, and teaching is dependent upon the conditions of learning. Whether we want a child to behave in a certain way or not to behave in a certain way, we are talking about the establishment of behavior.

The underlying concept in all the points to be made here is that of reward: We act in certain ways because of expected satisfying outcomes. Most behavior is both learned and maintained through this principle.

Learning new behavior. "New" behavior is really a rearrangement and refinement of bits and pieces of behavior already known. Learning to drive a car, for example, is the putting together of a variety of behaviors already known into a new sequence. Most new ways of acting are learned through imitation of others, and the more important the other people are to the learner, the more likely he is to imitate them. Further, the imitation occurs because the learner sees that the observed behavior achieves its goal: it is seen as successful or rewarding. A child, for example, may observe that pupils who raise their hands in class are more likely to be called upon, so he may imitate this behavior.

How a child expresses his feelings is learned in this fashion, also. If his models are physically assaultive when angered, the child is likely to imitate this method of anger expression. This can sometimes be shown to a child inadvertently. For example, if a parent does not want his child to fight and punishes him by spanking him, the parent is giving the child a model to imitate: the parent's physical attack is a behavior that may be imitated.

Spoken words, a kind of behavior, can have the same effect. A child is more likely to use expressions of self-worth if his parents say complimentary things about themselves occasionally when they have done something well. Also if parents are inclined to be critical in their comments about others, their children are also likely to talk about others in this way. The same is true in the classroom: if a teacher is inclined to be reasonable and democratic in his attitude and behavior, his pupils are likely to imitate this reaction to situations.

The implication for teaching children how to act, then, is to act the way we want them to act, not only toward others, but also toward the children themselves. Also, remarking positively about how people who are important to the child are acting should encourage the child to imitate those specific kinds of actions.

Establishing behavior. There are three general ways that a person can respond to another person's actions: by responding positively, by responding negatively, or by responding neutrally. Each of these may have some effect upon how a child will act later on.

1. Positive responses. On the basis of the idea that we will continue to do those kinds of actions that are satisfying in their consequences, positive responses are the most powerful ways to establish or "teach" behavior. If a child cries every night upon going to bed ("I'm afraid"), and his parents always go in and comfort him, he is likely to continue this evening performance. In a sense, his parents are "teaching" him that this is the way to obtain a desired action on their part. If a child is rewarded in some way by a valued teacher for behaving in a certain way, he is more likely to repeat that kind of action later because it was found to have satisfying consequences. If an adult finds that he makes more money (reward) by playing Black Jack rather than at the slot machines at Las Vegas, he is more likely to spend his time (and money) at the Black Jack tables. If a person, adult or child, finds that he is more likely to get his way by throwing a temper tantrum, he will be inclined to repeat this kind of behavior whenever he wants his way. If a child finds that reading is more enjoyable than mathematics, he is more likely to choose the former activity if he has a choice between the two.

There are two major factors that affect the establishment of an action through reward: First, actions are established more quickly if they are rewarded every time they occur; they are dropped (forgotten), however, more quickly, too, if the reward is not forthcoming. Actions are maintained longer if, once they are operating, they are occasionally rewarded rather than every time. It is as if the person thinks maybe this time it will be rewarded. Again, recall the behavior at the slot machines in Las Vegas.

The second factor of the effects of reward is that the action itself may become rewarding in its own right, no longer being dependent for its maintenance on other people's responses to it. For example, a child may learn to play tennis because this action is rewarded by his father; eventually, however, tennis itself may become sufficiently self-satisfying to continue without the father's participation.

2. Negative responses (punishment). It would seem logical that negative responses would be just the opposite of positive responses—that is, that we reward behavior we want and punish behavior we do not want. However, it is not that simple.

We will define a negative response as one that brings about some kind of pain, either physical, such as a spanking or touching a hot stove, or emotional, such as embarrassment or shame. We sometimes try to get a child to behave in a more desirable manner by punishing him (giving him a negative response) whenever he misbehaves. While it is true that this may stop the behavior we do not want, there are situations in which it may not seem to work. In one situation, the child may not know what desired behavior is wanted, or he may not know how to do it. The punishment itself, in other words, does not tell the child what to do—it is not instructive. A second situation is when the desired behavior is given by the child, but it is not rewarding—an important condition for its becoming established. True, it may be "rewarding" because it removes or avoids pain, but it will be more rapidly and permanently established if it brings about a positive response. A third situation is when the "punishment" is worth the price: the reward for doing the action is greater than the pain it may cause.

Punishment, or negative responses, therefore, must be instructive in that the child must know both the action for which he is being punished and the rewardable action desired by the punisher. A problem with punishment in general when it does stop unwanted behavior is that whatever the person does that stops the punishment itself becomes "rewarded" by removal of the pain, and thus helps establish that behavior, which may not be the one we want. For example, suppose that we punish a child for interrupting others while they are talking; the child remains quiet and thus is no longer punished. What may happen is that the child will learn to remain quiet (because talking has caused pain). What we wanted was for the child to learn appropriate conversation skills, and what we have taught him instead is not to talk at all. To avoid this, it would be necessary to reward the child whenever he talks at appropriate times, and we can aid his learning by modeling appropriate behavior. We must be careful, in other words, not to allow the child to generalize the punishment to other unwanted situations.

Another implication of punishment is that it does not necessarily get rid of the action itself, but may only stop its occurrence in the presence of the possible punishment. A child, for example, may get punished by his mother for

using "bad language"; if the use of bad language gets rewarded elsewhere, the punishment will only teach the child not to use it in front of his mother. Punishment, in other words, does not reduce the strength of the behavior; it just may keep it from occurring in certain situations. This is not necessarily bad, of course; children must learn to discriminate when a given behavior is "appropriate" or "acceptable".

A further possible bad side effect of punishment is that the pain of the punishment may become associated with the person who gives the pain; the child may then want to avoid that person. If this happens, he will be removed from the possibility of rewards from that person, rewards that are necessary for the establishment of desired behavior. Further, if a person is seen as a source of pain, this will reduce his effectiveness as a model for imitation.

A final implication of punishment is that it may give the child a way of manipulating the punisher: being the cause of a person's loss of composure may be more rewarding than the "punishment" is painful. The game of "bugging-the-teacher," for example, even through it may cause punishment from the principal or parents, may be highly rewarded by valued peers, or may be rewarding because the child may feel "victorious" over the teacher.

3. Neutral responses. Reactions that are neither rewarding nor punishing may be called "nonreward". As the term implies, nonreward is when we do something and it proves to be ineffectual for the purposes of our doing it. This is the only way that the tendency to act in a certain way is truly weakened or removed: it never works, so some other behavior that does work is tried and learned instead. This should be the goal of "discipline": to establish a desirable behavior, not just to "get rid of" a particular behavior. If a person never wins anything gambling (and if winning is the reason for the gambling behavior), and he never sees anyone else win, then gambling will become an activity that the person will not likely continue. Compare this with being punished for gambling: the punished gambler will still want to gamble, perhaps, but may not gamble because the risk of pain is high. However, if the risk of punishment is removed, or if a possible reward is greater than the potential punishment, he will be inclined to do such an activity because his tendency toward gambling behavior has not been weakened, just inhibited. If he believes that gambling is useless, however, the presence or absence of possible punishment will be irrelevant: he will not want to do it because it is not expected to bring rewards.

Summary of Establishing Behavior

The ideas described above suggest the following methods for establishing a desired behavior and removing undesired behavior: Model a behavior so that it can be imitated; reward a behavior when it occurs; ignore an undesired behavior when it occurs; punish an undesired behavior if necessary, but be sure that the person can perform an alternate desired behavior and immediately reward its occurrence.

A few comments about "reward" and "punishment" are required. It is necessary that these be as seen by the child. For example, for one child a piece of candy may be a reward while a compliment may not; and, vice versa, for another child a piece of candy may not be seen as rewarding as an admired adult's compliment. In an adult, a change in a job's title may be more rewarding than an increase in salary. On the other hand, a spanking may not be seen by a child as much a punishment as would deprivation of television. For some people, praise may be a rewarding experience, but for others it may be painful, depending on the situation. Therefore, knowledge of the person's reward and punishment system is essential.

It is necessary, furthermore, that the reward or punishment immediately follow the act. Rewarding a child's behavior, such as his reading, while he is doing it, is significantly more effective than an "A" on his report card several weeks later. Also, rewards and punishments should be built into the situation; that is they should be directed toward the action itself. For example, quarreling among siblings about television is more effectively punished by television deprivation than by the deprivation of some unrelated pleasure. Or, positively, "You read that paragraph with such good expression!" should be more effective (by rewarding a specific action) than a generalized "You are a good student." The latter may have positive effects upon the student's self-esteem, but the former affects a particular skill which, in turn, enhances self-esteem upon its repetition.

Finally, a reward should be relevant to the person's life and not remote. Learning in the elementary grades in school is better motivated through immediate rewards--the excitement of learning itself or some other more tangible immediate reward--than through such motivations as college entrance requirements or an eventual good job.

Most children have already learned general behavior patterns by the time they enter school. A significant exception to this would be those children who have not learned to respond to symbolic or social rewards, such as positive statements from others. Many children, such as may be found in Head Start programs, need to be taught to observe and respond to symbolic (language or gestural) behavior, beyond their more immature dependence upon physical ones.

Once a child has learned a general kind of behavior, he needs to be taught its refined expression. This involves his being able to use it in other situations (generalization), as well as to distinguish between similar but different kinds of actions (discrimination).

Say that a child enters kindergarten but does not say a word, even though it is known that he talks in other situations, such as at home. The first task is to get him to talk in the classroom--to generalize a behavior from one situation, it would be rewarded because at this point establishing talking-within-the-classroom behavior is the teacher's goal. In other words, he would not be punished if he spoke at an inappropriate time. Once the child has established this kind of behavior, however, he will need to be taught, through reward, non-reward, and punishment, to distinguish or discriminate when it is appropriate and when it is not appropriate to talk.

For the school-aged child, most "learning" will have to do with these kinds of tasks: learning more refined kinds of expression appropriate to given kinds of situations.

For example, behavior used to resolve interpersonal differences of opinion is expected to change as a child matures. As a preschooler, physical fighting is considered neither unusual nor necessarily inappropriate. With the development of language, however, and a growing awareness of the needs and rights of others, the child is expected to resort less to physical methods and more to verbal methods; thus, verbal arguing is expected and is not considered unusual at an early school age. Eventually the child learns to "discuss" differences of opinion. In all of these situations, the child (or adult) is defending his point of view, a legitimate motive, but the method he uses changes. These methods are developed because of differing responses on the part of others; the child "discriminates" among his actions because some are rewarded and some are not. If he does not have appropriate models to imitate and if he is not consistently

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selectively rewarded, he will be unlikely to learn appropriate behavior.

Another example of discrimination and generalization learning might be effective social group behavior. Adults have learned to behave differently in such diverse social groups as a classroom, church, a football game, and a stag party, and a child must learn to behave differently in the classroom and on the playground. On the other hand, people must learn to generalize some already known actions to new situations, such as, for an adult, entry into the Armed Forces and, for a child, entry into school.

"Adaptive" learning is effective use of generalization (awareness of similarities), and discrimination (awareness of differences). In our changing environment, it is generalization that gives our behavior its variety and flexibility. Our goal of helping children develop satisfying and effective methods of expressing their feelings and attitudes is closely related to our success in helping them to generalize and discriminate accurately.

Resource Materials
BEHAVIOR MODIFICATION

I. Social Learning Theory and Reinforcement Theory

Bandura, A., and Walters, R. H. Social Learning and Personality Development. New York: Holt, Rinehart and Winston, 1963. \$7.50

Bijou, S. W., and Baer, D., Child Development. Vol. 1: A Systematic and Empirical Theory. New York: Appleton-Century Crofts, 1961, (Two volumes \$2.25)

Eysenck, H. J. Experiments in Behavior Therapy. Oxford Press 1965.

* Hewett, Frank M., The Emotionally Disturbed Child in the Classroom. Boston: Allyn and Bacon, 1968.

Keller, F. S. Learning: Reinforcement Theory. N. Y. Random House, 1954, \$.95

Keller, F. S. and Schoefeld, W. N. Principles of Psychology. N.Y.: Appleton-Century-Crofts, 1950.

* Krasner, T., and Ullmann, L. P. Research in Behavior Modification: New Developments and Implications. N.Y.: Holt, Rinehart, and Winston, 1965.

* Krumboltz, J. D., Revolution in Counseling. Boston: Houghton-Mifflin Co., 1966.

* Skinner, B. F., Science and Human Behavior, N.Y. MacMillan, 1953 (paperback).

* Skinner, B.F. Analysis of Behavior, McGraw-Hill 1961 (paperback).

* Skinner, B. F. Technology of Teaching. Appleton-Century (paperback) 1968 \$2.98.

* Sloane and MacAulay. Operant Procedures in Remedial Speech and Language Training. Boston: Houghton-Mifflin Co. 1968.

* Staats, A. W., and Staats, C. K. Complex Human Behavior. N.H.: Holt, Rinehart and Winston, 1963.

* Staats, A. W., Human Learning. New York: Holt, Rinehart and Winston, Inc., 1964.

* Ullmann, L. P. and Krasner, T.: Case Studies in Behavior Modification. N.Y. Holt, Rinehart and Winston, 1965.

* Ulrich, Stachnik and Mabry. Control of Human Behavior. Glenview, Ill Scott, Foresman & Co. 1966.

Behavior Modification

II. Behavioral Objectives

- * Bloom, E. J., Engelhart, M. D., Furst, E. J., Hill, W.H. and Krathwohl, D.R. Taxonomy of Educational Objectives. Handbook I: Cognitives Domain. New York: David McKay Co., 1956. \$1.95.
- * Bloom, B.S. Stability and Change in Human Characteristics. N. Y.: John Wiley and Sons, 1964.

III. Cognition

- * Bruner, J. S. The Process of Education. Cambridge: Harvard Univ. Press, 1960. Paperback: \$1.35
- * Bruner, J. S. Toward a Theory of Instruction, Cambridge: Belknap Press, 1966.
- Flavell, J. H. The Developmental Psychology of Jean Piaget. Princeton: VanNostrand, 1963, \$8.75.
- Maier, H. W. Three Theories of Child Development. New York: Harper and Row, 1965. \$7.50.
- Gagne, R. M. The Conditions of Learning. New York: Holt, Rinehart, and Winston, 1965. \$5.50.

SECTION V

Psychological Tests and Techniques

INTRODUCTION

The psychological consultant is responsible for interpreting all data significantly related to the cause(s) of referral for a child. Often a sufficient amount of information is at hand to enable the consultant, after interviewing the teacher and observing the child, to draw valid conclusions and help referring person (s) develop a prescription for helping the child.

When this is not the case the consultant may use psychological tests and techniques to meet the need for more information. The tests and techniques, to varying degrees, present the subject with a set of standardized instructions to which he is expected to respond. The responses given can be compared to normative data supplied by the test publisher, published research results, and the examiner's store of experience. Interpretations of the results from the use of one particular instrument are generally not translated into conclusions about and recommendations for the child unless supportive evidence for these interpretations is found in other data sources.

The following explanatory descriptions of tests and techniques are not meant to give anyone a thorough understanding of the instruments, but are given as an aid to those who would like to become a little more familiar with some of the consultant's tools. The descriptions are organized so that information about a particular instrument can be found under the heading of the area of investigation for which it is most commonly used. Following some of the descriptions the reader will find the names of sources to which he might look for further information.

INTELLIGENCE

The assessment of the intellectual ability of children has historically been the primary task assigned to the school psychologist. Although the role of the school psychologist is rapidly changing the individual intellectual evaluation will continue to be a part of the duties performed by him. Two basic assumptions underlying the assessment of general intellectual ability are commonality in the background of children tested and similarity of that background to that of the sample used for standardization.

General intellectual ability is usually described in terms of mental age or intelligence quotient. By mental age this simply means the age at which a child is currently functioning or the intellectual level as opposed to his chronological age. Intelligence quotient is a ratio arrived at by a comparison of mental age to chronological age multiplied by one hundred.

The tests described in this section are among the major tools used by the psychological consultant to determine mental ability.

The Stanford-Binet Intelligence Scale
L. M. Terman and M. A. Merrill revision
1960

The Stanford-Binet Intelligence Scale is an individual intelligence test which gives a good indication of current developmental rate of a child; this rate is represented by a quotient. Using this quotient, a child can be compared with a typical group of children his own age. The test is said to be a good predictor of scholastic aptitude. The test can be administered to persons age two to twenty-two years; but it appears to be best for ages two through eight years of age. The Binet, as it is often called, is a particularly valuable tool for measuring intelligence at either extreme. Discrimination, judgement, and attention are involved at the younger ages; verbal reasoning is emphasized in items at the older ages.

Ross, Alan O. The Practice of Clinical Child Psychology. New York and London: Grune & Stratton, 1966
Terman, Lewis M. and Merrill, Maud A. Stanford-Binet Intelligence Scale. Boston: Houghton Mifflin Company, 1960.

The Wechsler Intelligence Scale for Children
David Wechsler
1949

The Wechsler Intelligence Scale for Children is an individual intelligence test which yields three scores, a general intelligence quotient, a performance quotient, and a verbal quotient. The performance quotient indicates the child's facility with items like the arrangement of small blocks into specific designs, and the verbal quotient is in part determined by items like vocabulary and similarities. The test contains a total of twelve subtests all of which need not be used with each child. The subtests evaluate a broad range of tasks. It can be used with children ages five years through fifteen years of age; but it is a better predictor of academic success when limited to use with ages nine years through fifteen years of age.

Glasser, Alan J. and Zimmerman, Irla Lee. Clinical Interpretation of the Wechsler Intelligence Scale for Children (WISC). New York and London: Grune & Stratton, 1967.
Ross, Alan O. The Practice of Clinical Child Psychology. New York and London: Grune & Stratton, 1966.

The Wechsler Adult Intelligence Scale
David Wechsler
1939, 1955

The Wechsler Adult Intelligence Scale is a revision of Form I of the Wechsler-Bellevue Intelligence Scale; it is an individually administered test which yields a verbal quotient, a performance quotient, and an overall intelligence quotient. The verbal portion of the test contains the following subtests: information, comprehension, arithmetic, similarities, digit span, vocabulary. Subtests, of digit span, picture completion, block design, and picture arrangement are included in the performance section.

This test is designed to begin at age fifteen years of age and is a good indication of current intellectual functioning. It is considered the best measure of adult intelligence.

Wechsler, D. The Measurement of Adult Intelligence. (3rd ed.) Baltimore: Williams & Wilkins, 1944.

Wechsler, David. Manual for the Wechsler Adult Intelligence Scale. New York: Psychological Corporation, 1955.

The Wechsler Preschool and Primary Intelligence Test
David Wechsler
1966

The Wechsler Preschool and Primary Intelligence Test is an individually administered intelligence test designed for use with ages four through six and one-half years of age. It has been standardized on a carefully selected sample at each of six age levels controlled for sex, color, father's occupation, geographic region and urban versus rural residence. It includes the same subtests similar to The Wechsler Intelligence Scale for Children and some new tasks suitable for younger children. The test gives three quotients; a verbal quotient, a performance quotient, and a general intelligence quotient.

Magary, James F. School Psychological Services, Prentice Hall, Englewood Cliff, New York. Pp. 285.

Wechsler, David Manual for the Wechsler Preschool and Primary Scale of Intelligence, The Psychological Corporation, New York, New York 1967.

Gesell Developmental Schedules
Arnold Gesell
1940

This is a clinical method for investigating the mental growth of children ages four weeks through six years. This assessment is accomplished through the use of qualitative measurement of motor development and personal-social behavior. This test is generally used only with children who have complications at birth or as a way of determining intellectual development in the preschool years.

Miriam G. Wilson, "Gesell Developmental Testing", Editorial in the Journal of Pediatrics, 1962: 162-64, January, 1963

Magary, James F., School Psychological Services, Prentice Hall, Englewood Cliff, New York. Pp. 367-370.

Ravens Progressive Matrices Test
J. C. Raven
1938, 63

The Ravens Progressive Matrices Test is an individually administered test that is labeled culture-free. By using picture analogies a mental age and an intelligence quotient is found. Ravens describes this test as a test of clear thinking and observation; it can be used with handicapped children; bilingual children or deaf children. Even though this test is labeled culture-free there is a limitation imposed on the performance of children from the lower socio-economic levels.

Raven, J. C. Guide to Using Raven's Progressive Matrices Test, London:
K. K. Lewis, 1952.

Green M. W. and Levert J. C., "Normative Data on the Progressive Matrices 1947"
Journal of Consulting Psychology, 19, 1955. Pp. 139-142.

Vineland Social Maturity Scale
Edgar E. Doll
1953

The Vineland Social Maturity Scale can be used to assess the social maturity level and the degree to which one can care for himself. Several different categories of tasks are represented and the test itself is answered for the examiner by either the person to be tested or by the parents or someone close to the child to be tested. The categories included are communication, locomotion, socialization, self-help, self-direction, and occupation.

Groulet, L. R. and Barclay A., "The Vineland Social Maturity Scale: Utility in assessment of Binet M.A.". American Journal of Mental Deficiency, 67: May, 1963. Pp. 916-21.

Hurst, John G., "The Meaning and the use of difference scores obtained between the performance on the Stanford Binet Intelligence Scale and The Vineland Maturity Scale:", Journal of Clinical Psychology, 18, April 1962. Pp.153-60.

Otis-Lennon Mental Ability Test
Arthur S. Otis and Roger T. Lennon
1967

There are six levels of this test; each test is designed for a specific age and developmental level, all are designed to measure a pupil's facility in reasoning and in dealing with verbal, symbolic, and figural test content sampling a broad range of cognitive abilities. It can be administered on either an individual or a group basis.

Otis and Lennon, Manual For Administration, New York, Harcourt, Brace and World, Inc.; 1967.

Pictorial Test of Intelligence
Joseph L. French
1964

The Pictorial Test of Intelligence is designed to give an indication of current rate of intellectual development and is individually administered. This test is used with children ages three years through eight years. It covers the following areas: picture vocabulary, form discrimination, information and comprehension, similarities, size and numbers, and immediate recall.

French, Joseph L. Development of the North Central Individual Test of Mental Ability, Doctor's thesis, University of Nebraska (Lincoln, Nebraska), 1957 (D'A 17:2, 498).

Buros, O. K. editor, The Sixth Mental Measurements Yearbook, Highland Park, New Jersey: The Gryphon Press, 1965. P. 532.

Peabody Picture Vocabulary Test
Howard R. Lyman
1959

This is an individually administered test which gives an intelligence quotient and a mental age and it can be used for testing ages two and one-half years through eighteen years. The child associates verbal symbols with pictorial representations. The test itself consists of 150 pages; each page contains four pictures and the child is required to point to the correct illustration when a stimulus word is presented orally.

Magary, James F., School Psychological Services, Prentice Hall, Englewood Cliff, New York. Pp. 287-288.

Dunn, L. M. and Hottel, J. V., "Peabody Picture Vocabulary Test Performance of Trainable Mentally Retarded Children", "American Journal of Mental Deficiency, 65 (1961), 452-488.

Draw-a-Man Test
F. L. Goodenough
1963

The Draw-a-Man Test is a study of children's drawings as a measure of intellectual maturity. It can be administered on either a group or an individual basis. It is one of the oldest measures of intelligence and was first introduced in 1926. It is best used with young children to assess intelligence as manifested in the child's ability to perceive, abstract, and generalize.

Ross, Alan O. The Practice of Clinical Child Psychology. New York and London: Grune & Stratton, 1966.

Goodenough, F. L. and Harris. Children's Drawings as a Measure of Intellectual Maturity. New York, New York, Harcourt, Brace and World Inc. 1963.

Illinois Test of Psycholinguistics Abilities
McCarthy, James; Kirk, Samuel
1961

The Illinois Test of Psycholinguistics Abilities is an instrument designed to detect specific language abilities in pre-school and primary school children in order to provide remedial procedures which will help the child overcome his deficiencies.

The Illinois Test of Psycholinguistics Abilities - The test consist of nine subtest and yields nine standard subscores measuring, differential language abilities in two levels representational and automatic sequential;

five abilities: decoding, association, encoding, automatic, and sequency, and four channels: visual, auditory, vocal, and motor related to communication skills. The test also yields a global language age.

McCarthy, James; Kirk, Samuel, Illinois Test of Psycholinguistic Abilities, Manual, Institute for Research on Exceptional Children, University of Illinois, Urbana, Illinois 1961.

The Benton Revised Visual Retention Test
The Psychological Corp.
1963

The Revised Visual Retention Test is a clinical and research instrument designed to assess visual perception, visual memory and vision constructive abilities. Three drawing forms of the Test (Forms C, D & E) consist of 10 designs each, upon which one or more figures have been drawn. Retest reliability for administration a (10 seconds exposure with immediate reproduction), as estimated by the correlation coefficients between equivalent forms, has been found to be approximately, 85. The time required for the administration of a drawing form is about 5 minutes.

Benton, Arthur, "The Revised Visual Retention Test," The Psychological Corporation, New York, New York, 1963.

The Developmental Test of Visual-Motor Intergration
Beery, Keith E.
1967

"The Developmental Test of Visual-Motor Intergration" (VMI) is a series of 24 geometric forms to be copied with pencil and paper. The forms are arranged in order of increasing difficulty. The test can be administered to children in the age range of two to fifteen years, but it was designed primarily for the preschool and the early primary grades. The format is suitable for both group and individual administration.

Since visual-motor behavior is a composition of other behaviors, including visual perception and motor coordination, techniques for determining specific areas of difficulty are provided. They are to be used after the VMI is given, as the goal of assessment is usually that of improved educational programming, teaching techniques to parallel areas of assessment are suggested

Beery, Keith E. "The Developmental Test of Visual-Motor Intergration" Scoring Manual, Follett Educational Corporation, Chicago 1967.

Perceptual competence functioned by regressive age-level performance is amply illustrated in Bender's monograph and in the detailed manual by Pascal and Suttell. While it is generally accepted that this visual perceptual book may be used with the normally progressing school child, most of its application has been in the area of pathology. Within this area its greatest and most frequent use has been to detect the presence of brain damage. Bender rationalize for the particular use of her test emphasizes the notion that the child's copying of the model designs reflects difference in "maturation or growth levels", as well as organic or functional pathology.

Marianne Frostig Developmental Test of Visual Perception
Koppitz, Elizabeth
1965

The test, designed to measure certain operationally defined perceptual functions, contains five subtests: eye-motor coordination, perception of figure-ground relationships, of constancy of shape, of position in space and of spatial relationship is a paper and pencil test that may be easily administered either individually or to groups. The time required for group administration is less than one hour: individual administration takes approximately twenty-five minutes. Scoring is objective and requires from five to ten minutes. The child's raw score for each subtest is converted into a perceptual age equivalent. A perceptual quotient can then be derived in a manner similar to that used for determining an intelligence quotient.

Koppitz, Elizabeth, The Bender Gestalt Test for Young Children, Grune & Stratton, New York, London, 1965.

Frostig, Marianne, Administration and Scoring Manual, Consulting Psychologist Press, Palo Alto, California, 1966.

Bender Visual Motor Gestalt Test
Koppitz, Elizabeth

The test consists of nine figures, adapted by Bender from Werthiman. This figure copying test purports to assess visual-motor maturity of the child and adult and to be a means of exploring the effects of encephalopathy. Bender defines the "gestalt function" as the manner in which the individual "responds to a given constellation of stimuli as a whole, the response itself being a constellation or pattern or gestalt." In other words, the manner in which the model figures are reproduced by the tester reflects the maturational status of the child's perceptual processes. The scoring is qualitative, subjective and includes a consideration of such elements as distortions, modifications, majorification, elaborations, rotations, and organization of the figures on the sheet of paper used for copying them.

The Oseretsky Tests of Motor Proficiency
Doll, Edgar A.
1946

The measurement of motor aptitude as one important aspect of the overall consideration of individual growth and maturation has received much attention in recent years. The Oseretsky scale provides a practicable means for the measurement of motor proficiency as a developmental process in terms of life age progression.

The Oseretsky scale is a year-scale of tests of motor maturation for measuring genetic levels of motor proficiency. It is comparable in structure to the Binet-Simon scale for measuring intelligence and the Vineland Social Maturity Scale for measuring social competence. And like them it affords a standard means for the clinical evaluation of a distinctive aspect of behavioral development.

Doll, Edgar A: The Oseretsky Test Handbook, American Guidance Service,
Circle Pines, Minnesota, 1946.

Goldstein-Scheerer Test of Abstract & Concrete Thinking
Goldstein, Kurt; Scheerer, Martin
1964

Of importance to psychologist, psychiatrist and neurologist working with patients who have brain injuries, these tests measure both quantitatively the impairment of the function of the brain with reference to abstract and concrete reasoning.

Goldstein, Kurt; Scheerer, Martin; "Abstract and Concrete Behavior an Experimental Study with Special Tests," American Psych. Association, Evanston, Illinois, 1964.

Minnesota Test for Differential Diagnosis of Aphasia
Schuell, Hildren
1969

A clinically tested procedure for the evaluation of aphasic deficit's resulting from brain damage in patients, which indicates level of impairment in each of five language areas and prognosis for recovery.

Schuell, Hildren; "Aphasia in Adults", Harper and Row, New York, New York
1969.

Harris Test of Lateral Dominance
Buros

This manual of examining procedures brings together a number of accepted and easy-to-administer tests of lateral dominance. The tests do not yield a standardized score-rather, they provide a systematic basis for collecting sufficient information to make a clinical judgement possible.

Ages 7 and over knowledge of right and left, hand preference, simultaneous writing, handwriting, tapping, dealing cards, strength of grip, total hand dominance, monocular sighting, binocular sighting, visual acuity total eye dominance, kicking, stamping, total foot dominance.

PERSONALITY

Investigations in this area usually involve attempts to reveal patterns of motivation and of temperamental or emotional traits of the individual in contrast to cognitive traits and abilities. For a good number of years, of course, people in education and psychology have realized that factors of personality have a great deal to do with how effectively a child can use his learning opportunities. An adequate diagnostic process requires information from many sources and careful examination of both behavior and environment. Among the most important sources of such information is the teacher. The following paragraph written by Maurice Freehill, Professor of Educational Psychology at the University of Washington expresses this clearly.

"For information on both environment and behavior the school psychologist is particularly dependent on teacher cooperation and teacher report. Social workers and others contribute to this information, but in all cases teachers have extended acquaintance with the child, and some have considerable insight through observing social behavior, discussing feelings found in literature, reading self-report themes, or evaluating day-to-day work. To secure the best possible information it is often necessary to extend the teacher's written report by means of an interview. Personal contact supplements and may change the meaning of the first referral. One child may reject discipline because he is making a first attempt at independence. Another may reject discipline because he has been disciplined in a foolish and inconsistent fashion, leaving the belief that discipline makes no sense. The difference between these behaviors is more likely to be noted in conversation than in written report." 1.

Because personality assessment is a complex task it requires, as already inferred, that the consultant make as much use as possible of available information from school records and personnel, parents, and from personal observation of the child's functioning both in his everyday environments and in formal testing situations.

When information about adjustment patterns is gathered through the last mentioned method, formal testing, the consultant has a large number of tests and techniques at his disposal. These can be categorized for the most part as questionnaires or inventories, checklists, and projective techniques. The advantages of questionnaires inventories and checklists are that normative data for statistical analysis is often available, less clinical training is required for their use and they are more reliable. They have, though, the disadvantages of being falsifiable, leaving less opportunity for observational data, and requiring (not always) certain academic skill levels of the tests.

Projective techniques require that a subject respond to a situation that does not elicit or compel a particular response, a situation relatively unstructured and ambiguous. The techniques have advantages and disadvantages in direct opposition to those previously mentioned.

1. James F. Magary, School Psychological Services, Englewood Cliffs, New Jersey, Prentice-Hall, Inc., 1967. Pp. 248-9.

The following are descriptions of some of the personality test and evaluative techniques regularly used in diagnostic and screening work.

PERSONALITY TESTS

California Test of Personality

Authors: Louis P. Thorpe, Ph.D. Willis W. Clark, Ed. D. and Ernest W. Tiegs, Ph.D.
1953

This is a paper and pencil inventory type test which provides information about personal and social adjustment characteristics of individuals and groups. Separate sets of test materials are available for each of five age levels which when combined cover ages from kindergarten level through adult. The inventory at all levels is divided into two main sections, Personal Adjustment and Social Adjustment. Each of these sections is further divided into six subsections.

In responding to items with yes or no the examinee indicates something about how they feel, think, and act according to a wide variety of situations which affect them as individuals or as members of groups.

The inventory requires 40-50 minutes of administration time and can be given individually or to groups of varying sizes. In clinical practice it is used more as a check list for the individual than a set of measurements.

**See Test Manuals

Questionnaires from Institute for Personality and Ability Testing
(ESPQ, CPQ, HSPQ, and 16 PF) Co-authored by R. B. Cattell

These tests are based on what are considered the best of factor analysis procedures. The four tests cover ages 6 through adult. The scales enable interpretation of significant deviations in either direction from the mean for meaningful personality aspects.

The student taking ones of the tests in most cases needs only a few moments of preliminary instructions and then is able to continue on his own. For children who have a reading deficiency audio taped presentations are available.

Results may be interpreted in reference to specific factors and in weighted combinations of factors. In many cases profiles of results can be compared to known profiles of defined groups such as boy scouts, creative writers, or delinquents.

**Handbook of Clinical Psychology-Benjamin McGraw Hill; Factor Analysis, R. B. Cattell, Harper & Row, New York 1952: Personality R. B. Cattell, McGraw Hill New York, 1950.

Minnesota Multiphasic Personality Inventory

Authors: S. R. Hathaway and J. C. McKinley
1943

This is a diagnostic instrument constructed entirely on the basis of clinical criteria. It contains ten scales and four additional scoring areas.

<u>Ten Scales</u>	<u>Additional Scoring Areas</u>
Hypochondriasis	Question
Depression	Lie
Hysteria	Validity
Psychopathic Deviate	
Masculinity-Femininity	K(refines discrimination of 5 of of the clinical variables)
Paranoia	
Psychasthenia	
Schizophrenia	
Hypomania	
Social Introversion	

The MMPI was the first thoroughly empirical personality inventory. For the psychological consultant in the schools it is particularly valuable in helping to determine the severity of conditions. While being only moderately successful in meeting this need it is considered to be about as good as possible considering the present state of classification of personality variables.

The MMPI is to be used with older adolescents and adults. It requires one to two hours for administration.

**Handbook of Clinical Psychology-Editor Benjamin Wooman, McGraw Hill, 1965.

**Manual and Booklet for the MMPI-by S. R. Hathaway and J. C. McKinley, Psychological Corporation, New York, 1943.

Bellak Children's Apperception Test

Author's Leopold and Sonya Bellak

The CAT is a projective technique and consists of ten drawings of animals in various social situations and was prepared as a downward extension, for children ages 3-11, of the Murray TAT. It is based on the theory that young children identify more readily with animals than with human figures. The comments made about the TAT for administration and interpretation are relevant to the CAT. The sources for further information are also the same.

Thematic Apperception Test

Author - H. A. Murray

The TAT, a projective technique, is made up of a set of thirty-one picture cards providing two series of ten each for boys, girls, men, and women. Stories and description of the pictures reveal some of the dominant drives, emotions, sentiments, complexes and conflicts of a personality.

Several methods of organizing data for interpretation are possible and this is left to the discretion of the trained examiner.

The TAT is most appropriately used for children ten years of age or older. It requires approximately one hour to administer.

****The TAT and CAT in Clinical Use--Leopold Bellak**

Handbook of Clinical Psychology--Benjamin Wolman, McGraw Hill 1965 - "A method for Investigating Fantasies, The Thematic Apperception Test", Arch Neurol. Psychiat, 34 (1935) 289-306.

Rorschach Technique

Author--H. Rorschach

The Rorschach, a projective technique, consists of ten cards displaying inkblots in black, white, shades of grey and in some instances other colors. It is meant to reveal aspects of personality organization and intellectual functioning which observation of the subject would fail to detect. There are no age limits for examiners. This test is used as a diagnostic aid only after much supervised practice experience by the examiner. It usually requires one hour or more for administration.

****Psychodiagnostics--by Herman Rorschach**

The Handbook of Clinical Psychology--Benjamin Wolman, McGraw Hill, 1965
School Psychological Services, Edited by James F. Magary 1967, Prentice Hall Inc. New Jersey.

Draw a Person Test

Author--Karen Machover

The subject is asked to draw a person and after completing this drawing he is asked to draw a person of the sex opposite from the first.

Various types of questioning may take place after the drawings are completed. The drawings and behavior during execution are evaluated along with comments and answers given after execution. This is a projective technique.

**** Personality Projection in the Drawing of the Human Figure--by Karen Machover,
Charles C. Thomas, Springfield, Illinois, 1948**

HTP (House-Tree-Person Technique)

Author--John N. Buck
1948

This projective technique involves the drawing of the three objects in the title which are familiar to the child and drawn willingly by the child. The act of drawing is followed by an extensive interview. Analysis of the drawings which are concerned with such things as behavior during execution, sequence, position, size, proportions, shading and details. It allows the examiner to draw conclusions about self concept, feelings toward family and

home, fears, etc. Interpretations are generally not used in making recommendations unless substantiated by information available from other sources.

**The H-T-P Test, Journal of Clinical Psychology 4(1948), 151-158
Handbook on Clinical Psychology-by Benjamin Wolman, McGraw Hill, 1965

Sentence Completion Techniques

No particular authors can be credited with these techniques consisting of a series of sentence stubs or stems of one or more words which the subject is asked to complete in his own words.

The number of items as well as instructions vary with the particular tool being used.

It is generally believed that responses reflect attitudes motives and conflicts. The results are interpreted in light of these concepts. The technique is considered to be projective in nature.

**Handbook on Clinical Psychology-Benjamin Wolman, McGraw Hill, 1965

Projective Techniques and Cross Cultural Research-G. Lindsey, Appleton-Century-Crafts, New York, 1961

"The Use of a Sentence Completion Test for the Diagnosis of Personality".
by M. I. Stein, Journal of Clinical Psychology, 1947, 347-56.

ACHIEVEMENT TESTS

(instruments which are most commonly
used to evaluate individually the
academic skill levels of pupils.)

Botel Reading Inventory

Morton Botel

Date published 1962

A three-part informal inventory designed to estimate the instructional, independent, and frustration reading levels of children and evaluate knowledge of selected phonics and related skills. Though it may be used from grades 1-12, on an individual or group basis, it is most appropriate for use with those students whose reading levels are at the fourth or lower grade levels.

The Sixth Mental Measurements Yearbook

Ira E. Aaron P. 834, 835

Botel Reading Inventory Manual

Los Angeles Diagnostic Tests: Fundamentals of Arithmetic.

Caroline Armstrong and Willis W. Clark

Date published 1925

Grade range 2-8

This test is designed to measure achievement in the four fundamental processes of arithmetic. It is useful as a survey tool and for diagnosis of individual difficulties. There are problems for each process of adding, subtraction, multiplying, and dividing whole numbers, common fractions, and decimals. A record sheet provides a record of errors which is the basis for both individual and group remedial work.

Manual of Directions, Los Angeles Diagnostic Tests Fundamentals of Arithmetic, Form 1 and 2
Caroline Armstrong and Willis Clark.

Durrell Analysis of Reading Difficulty

Donald Durrell

Date published 1955

An individual diagnostic test which is designed to discover weaknesses and faulty habits in reading. There are three levels: non-reader or pre-primer, primary, and intermediate grade levels. Oral reading, listening comprehension, and other tests are supplemented by check lists for recording observations of difficulties. From 30 to 90 minutes of testing time is required to administer the test to each child. The tests may be given in order, but generally it is best to give the oral reading test first.

Lee J. Cronbach: Essentials of Psychological Testing P. 290-292
D. D. Durrell and Helen B. Sullivan, Manual for Durrell-Sullivan Reading Capacity and Achievement Tests (New York: Harcourt, Brace and World, Inc. 1955)

Wide Range Achievement Test

Joseph Jastak and Sidney Bijou

Date published 1965

This is a diagnostic test which may be used on an individual or group basis. It is designed to measure the level of skill in reading, spelling, and arithmetic. Each subtest is divided into levels. Level I is for 5 years 0 months to 11 years, 11 months. Level II is for 12 years 0 months to adult

A separate test is given in each area with the results combined. Raw scores are converted into grade levels, standard scores and percentiles. This test has been found to be accurate for special class placement. Its most valuable feature is the provision for analyzing personality adjustment from uneven scores in the three parts of the test. Reliability coefficients have been found to be +.83 in spelling and +.95 in reading.

The Third Mental Measurements Yearbook

Douglas Courtney, Verner Sims and Louis Thorpe P. 21

Magary, James. School Psychological Services in Theory and Practice, A Handbook
Englewood Cliffs, New Jersey. Prentice-Hall, Inc., 1967