

DOCUMENT RESUME

ED 068 204

24

PS 006 086

AUTHOR Collier, Alan R.
TITLE Systems for the Observation of Classroom Behavior in Early Childhood Education.
INSTITUTION ERIC Clearinghouse on Early Childhood Education, Urbana, Ill.
SPONS AGENCY Office of Education (DHEW), Washington, D.C.
BUREAU NO BR-0-0288
PUB DATE Apr 72
CONTRACT OEC-0-70-2623 (519)
NOTE 62p.
AVAILABLE FROM College of Education Curriculum Laboratory, University of Illinois, 1210 W. Springfield Ave., Urbana, Ill. 61801 (\$1.05)

EDRS PRICE MF-\$0.65 HC-\$3.29
DESCRIPTORS *Classroom Communication; Classroom Environment; *Classroom Observation Techniques; *Early Childhood Education; *Instrumentation; Interaction Process Analysis; Measurement Instruments; Methods; Preschool Programs; Rating Scales; *Student Teacher Relationship; Teacher Behavior

ABSTRACT

Instruments, not previously reported in the literature, for observational techniques that can be used in early childhood classrooms are described. Excluded are those instruments which the Research for Better Schools, Inc., a regional laboratory, will report. Section I of this report is an introduction to observational procedures and especially to observations in selected situations. Devices and techniques used for the collection of observational data are described and discussed. Section II then describes twelve classroom observation instruments, including: Classroom Behavior Scale; Daily Ratings; Discrete Classroom Behavior Schedule; Evaluation Scale of Four- and Five-Year-Old Children; Intensity of Involvement Scale; Nursery School Behavior Record; Observer Ratings of Children; Overview Snapshot Observational Technique; Reaction of Entry of Teachers; School and Classroom Observation Categories; Teachers' Attending Behaviors; and Weekly Ratings. An extensive bibliography is also included. (LH)

ED 068204

PS 006086

PA-24
BR-0-0288
OEC-0-70-2623(57)

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

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE
PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS
STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION
POSITION OR POLICY.

SYSTEMS FOR THE OBSERVATION OF CLASSROOM BEHAVIOR
IN EARLY CHILDHOOD EDUCATION

by
Alan R. Coller

ERIC Clearinghouse on
Early Childhood Education
805 W. Pennsylvania Avenue
Urbana, Illinois 61801

Available from the
College of Education Curriculum Laboratory
University of Illinois
1210 W. Springfield Avenue
Urbana, Illinois 61801

Price \$1.05

April 1972

#1300-28

This paper was produced pursuant to a contract with the Office of Child Development, partially supported by a contract with the Office of Education, U.S. Department of Health, Education and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment. Points of view or opinions stated do not, therefore, necessarily represent official Government position or policy.

Systems for the Observation of Classroom
Behavior in Early Childhood Education

Alan R. Collier
Associate in Education

INTRODUCTION

A search through the literature to locate instruments used to systematically observe early childhood classroom behavior has been a reminder that educational researchers did not always consider the study of classroom observation systems a top priority. Few observationally based studies are reported for the late forties and fifties. The next decade began a new era in the use of observational techniques in early childhood classrooms. In addition, the early researchers (with some notable exceptions) were primarily concerned with an examination of child behavior. Researchers today are concerned with teacher behavior and with student-teacher interactional behavior.

Many recent reviews describe observational techniques that can be used in early childhood classrooms.* Thus it is the purpose of this paper to describe those instruments not reported in the collection listed above. We have also excluded in this report those instruments which the Research for Better Schools, Inc., a regional laboratory, now intends to

*See, for example, reviews by Adams (1970); Becker, Thomas, and Carnine (1969); Biddle (1967); Biddle and Elleva (1964); Boyd and deVault (1966); Collier (1971); Dawe (1947); Dopyera and Lay (1969); Gellert (1955); Gordon (1966); Gordon and Jester (in press); Hanley (1970); Hartup (1970); Hare (1962); Johnson and Bommarito (1971); Medley and Mitzel (1963); Murray (1970); Ober (1968); Sears and Dowley (1963); Simon and Boyer (1968); Soar (1970); Stake (1970); Webb, Campbell, Schwartz, and Sechrest (1966); Weick (1968); and Wright (1960).

include in a forthcoming collection.

Section I is intended to provide an introduction to observational procedures and especially to observations in selected situations. Devices and techniques used for the collection of observational data are described and discussed. Section II describes twelve classroom observation instruments not previously described elsewhere.

Section I. AN INTRODUCTION TO OBSERVATIONAL PROCEDURES

Direct Observational Procedures

A fundamental characteristic of all direct observational procedures is their emphasis upon overt behavior, including expressive or coping behaviors that can be seen, heard, or otherwise perceived by the human or mechanical recorder. Covert behaviors, or a child's or teacher's perceptions, attitudes, feelings, or intents for their interactions are not directly observable and must, therefore, be inferred from overt behaviors, or assessed by other means. The fact that direct observational techniques relate to the recorder's perception of emergent behaviors and not to his impressions of past behavior serves to distinguish such procedures from behavioral trace procedures.

Direct observational procedures may be concerned with behaviors as they occur either under naturalistic or controlled situations. Naturalistic observations are concerned mainly with viewing the child in his everyday environment; where behavior can unfold naturally and is not influenced or caused by the observer or his cohorts. Two naturalistic

observational techniques are: observations in unstructured environments and observations in selected situations. The technique known as observations in contrived situations is a controlled observation technique. In controlled observations the environment is "subtly" modified by the observer in such a way that behavior of interest to the observer may be elicited from S; Weick (1968) called this approach "tempered naturalness."

Our concern in this paper is to examine systems useful for the observation of behaviors which take place in early childhood classrooms. An analysis of techniques belonging to the observations in selected situations approach, as portrayed in Figure 1, seems to suit this purpose best.

Observations in unstructured environments are concerned with situations, in which the subject moves freely about his everyday environment (e.g., his neighborhood) unrestricted by the observer. Such behavior is usually assessed by any number of different types of "trailing" techniques, usually referred to as specimen description techniques (Wright, 1960). These techniques involve following the subject and recording, usually in a detailed sequential narration, his predominant modes of response to various situations he encounters. The specimen description technique can also be used in the classroom situation.

Observations in contrived situations refer to techniques designed to assess behaviors in specially designed situations that are intended to elicit responses of interest. Weick (1968) indicated that there are several reasons why an investigator might decide to modify a natural setting, but basically it is because he cannot afford to just wait for

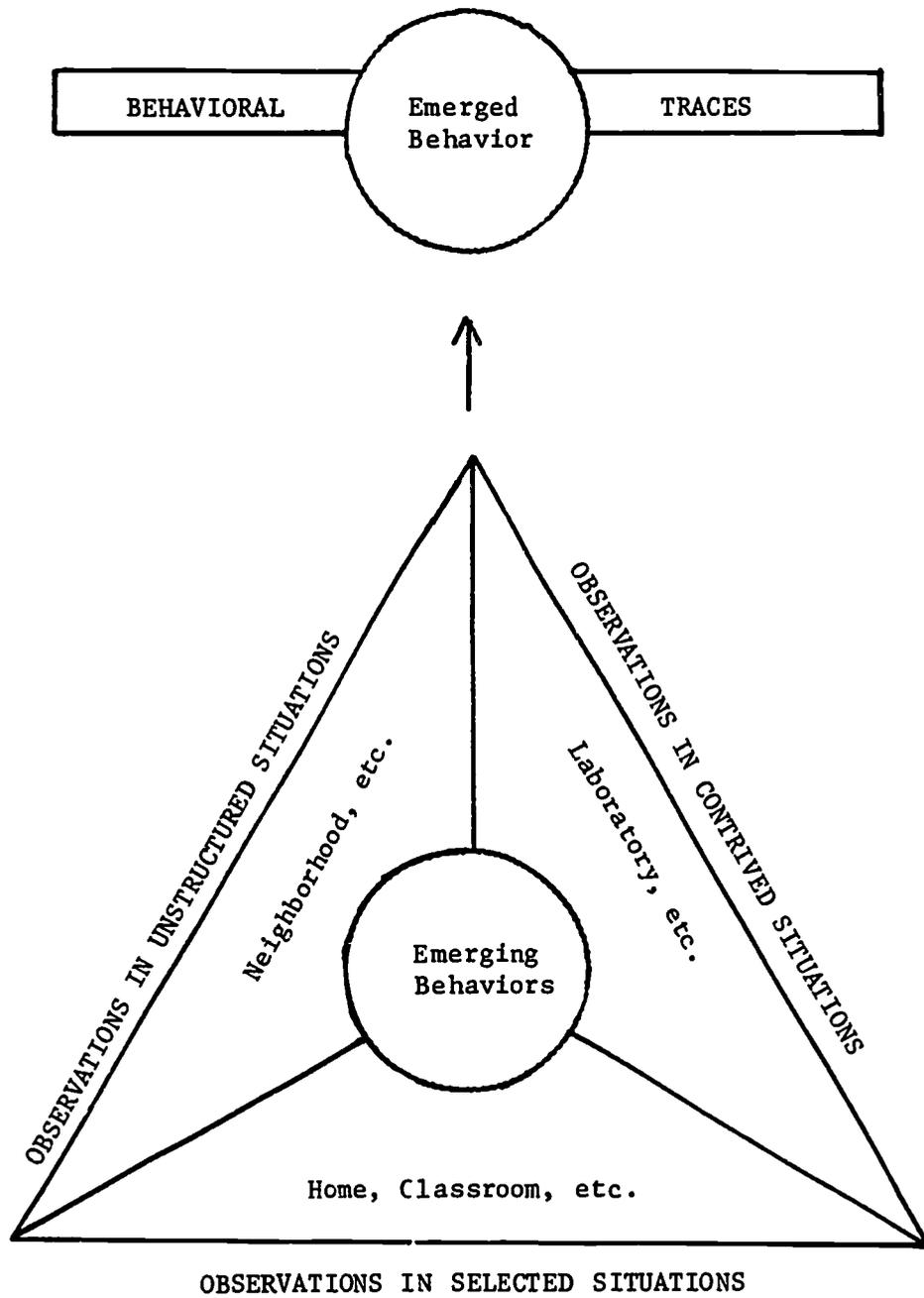


FIGURE 1. Basic Observational Procedures

something relevant to happen. Techniques used for observations in contrived situations also provide more control and the results may be generalizable to other conditions which are similar. An example of an observation in contrived situations technique is the instrument, Reaction to Entry of Teachers, developed by the staff of the National Institute of Mental Health (undated (c)) and described in the next section. In general, the true purpose of the modified situation is hidden from the subject and he is not (or should not be) aware that he is being observed.

Observations in selected situations refer to a class of techniques that are designed to assess behavior in given situations (e.g., in the classroom, on the playground, at home, etc.). These procedures are employed because many interesting behaviors occur more frequently under certain conditions than under others. And, also researchers and educators are vitally concerned with classroom behavior. Almost every type of device and technique available has been used to gather observational data in the classroom.

Collecting Observations in Selected Situations

Weick (1968) considers two processes basic to the observational process: recording and encoding. Recording means that "...a considerable portion of observational research consists of making extensive records of events which at some later time are subject to analysis" (p. 361). Encoding is "...the simplification of records through ratings, categories, or frequency counts" (p. 361). Weick's distinction,

PS 006086

however, does not do justice to the observational processes which uses encoding techniques as recording procedures. Another way of looking at these processes is possible: Webb, et al (1966), for example, speak of "accretion", a process whereby materials are "deposited" and later examined by behavioral trace measures. This is an arresting distinction and is one of which we should be more aware. We may note in this respect that the initial collection or accretion of observational data employs direct observational procedures; the analysis of the already-collected data employs behavioral trace procedures. In any event, we shall use the term "accretion" to refer to any process whereby behavioral data is gathered for future analysis.

Data Accretion Devices

Classroom behaviors can be witnessed live by an observer or recorded mechanically by a technician using a video-tape recorder, for example. Behaviors observed live may be encoded on-the-scene or otherwise described to be processed later. Regardless of approach, the end result is the accretion of data that is to be analyzed statistically at some future time. There are ten basic accretion devices by which observational data may be "deposited" physically: (1) cinematic, (2) audient, (3) photographic, (4) typographic, (5) miscellaneous mechanical devices, (6) self-as-instrument, (7) diagrammatic, (8) notational, (9) marking, and (10) written. These accretion devices can be combined to form a more extensive set of devices (See Table 1).

TABLE 1. Matrix of Accretion Data Devices Currently Used for "Depositing"

Classroom Observational Data

	CINEMATIC	AUDIENT	PHOTOGRAPHIC	TYPOGRAPHIC	MISCELLANEOUS MECHANICAL DEVICES	SELF-AS-INSTRUMENT	DIAGRAMMATIC	NOTATIONAL	MARKING	WRITTEN
CINEMATIC	✓									
AUDIENT	✓	✓								
PHOTOGRAPHIC			✓							
TYPOGRAPHIC		✓		✓						
MISCELLANEOUS MECHANICAL DEVICES					✓					
SELF-AS-INSTRUMENT						✓				
DIAGRAMMATIC							✓			
NOTATIONAL								✓		
MARKING	✓	✓							✓	
WRITTEN			✓						✓	✓

Cinematic procedures in the form of motion picture films have gained in popularity as an accretion device (e.g., Haggard and Isaacs, 1966; Haworth, 1956; and Openshaw and Cyphant, 1966). The cinematic/audient combination which may be in the form of a film with sound or video-tape with sound is even more popular (e.g., Brown, 1968; Kounin, Freisen, and Norton, 1966; and Soar, 1970). Miller (1969, 1970) employed a soundless video-tape method but combined it with a marking procedure (cinematic/marking) to categorize further the events as they occurred.

Audient procedures of all types have been employed (e.g., Loomis and Meyer, 1959 and Ober, et al, 1968). Loomis and Meyer (1959) had two observers watch subjects and had them describe on tape everything that occurred. The observer's voice was analyzed as well as content. Sher and Horner (1967) used two tracks--one to record what the subject said and the other to keep a record of what the subject was doing. These data were later transcribed for analysis (audient+typographic). Caldwell (undated) uses the audient+marking procedure whereby a narrative description of behaviors is tape recorded and then coded. The audient+written approach was used by Schoggen (1964). He used a "Stenomask" into which he narratively described what was going on in the classroom. He obtained a degree of freedom in that he could move about and talk without disturbing anyone. He later wrote down his impressions.

Withall (1956) used time-lapse photography, a photographic data accretion device. Gump (1967) obtained a specimen description of a classroom but supplemented his data by use of photographs (photographic/written).

Chapple (1949) invented the "interaction chronograph" which was similar in many respects to a typewriter; the keys differed and were, in fact, codes for behavior. The typographic device is used often to transcribe audiently obtained observational data.

There are a number of different miscellaneous type data accretion devices. Wilensky (1965), for example, used a wristwatch to count the length of time of various periods in a nursery school. Hargreaves and Starkweather (1963) used a voice spectrometer to examine emotive quality. Crawford and Nicora (1964) used an ultrasonic device to examine classroom movement.

Self-as-instrument devices refer to any procedure in which the observer himself is behaving as if he were the recording device. The observer becomes both a cinematic and audient device and tends to rely upon "memory" for recording visual and auditory events. Later the observer attempts to recall what it was that transpired. Lofland (1971) and Schwartz and Schwartz (1955) discuss the participant observer approach which involves the observer "living with" the type of persons he is concerned with describing. Combs and Soper (1963) describe the self-as-instrument device and have developed scales (which O (an observer) rates) after he has gathered his inferences about S (self-as-instrument-marking).

Coller (1970) used the diagrammatic device (which, by definition, also employs notations) to display pictorially a day-in-the-life of a classroom. Coller (1970) also used the diagrammatic/written device to describe more fully what the diagrams and the notations on it represented.

Wrightstone (1944) used a notational system to describe how students at their seats in a classroom were reacting in respect to the lesson.

Marking, of course, is an obvious encoding procedure (a diagrammatic and/or notational system may also be an encoding procedure) and may be employed as a supplementary process for many of the devices mentioned. The observational instruments developed by Medley and Smith (1969) and Wilensky (1966) are typical marking procedures. The Educational Testing Service (1966) and Prescott (1967) developed instruments which employed both marking and narrative description (marking/written).

The written devices are well known (e.g., specimen description, diary description, anecdotal records, etc). The work of Kounin (1970) and of Barker and Wright (1955) are good examples of this method.

Implementation of Data Accretion Devices

How to implement a chosen accretion device in the classroom is a problem for the developer of an observational instrument. Wright (1963) and Gordon and Jester (in press) have considered this issue. For example, Wright attempted to schematize six basic methods used in observational child study: diary description, specimen description, time sampling, event sampling, trait ratings, and field unit analysis. These methods may be distinguished from one another on the basis of "continuum coverages", "material coverage", "recording technique", and "analysis procedure." Gordon and Jester (in press) added to the number of basic methods by dividing the time sampling category into "time/signs," and "time/categories" and by adding "level of cognitive interaction."

Table 2 presents an alternative to these approaches. Basically, the matrix displayed in Table 2 is described by two dimensions: a set of data systems and a set of sampling units.

Fundamental Data Systems

There are three fundamental data systems: field, sign, and category. Field data system refers to that situation in which the observer is not pre-set by instruction to look for and assess specific behaviors. Instead, the observer is to respond to field forces and describe, within pre-determined limits, all that occurs. Sign data system refers to the approach during which O lists "beforehand a number of specific acts or incidents of behavior which may or may not occur during a period of observation" (Medley & Mitzel, 1963, pp. 298-299). O, however, is pre-set by the sign system to look only for certain behaviors. We distinguish between two types of sign systems: the discrete and the hierarchical. Sign/discrete systems refer to those observational schedules whose categorical boundaries do not approach the equal-appearing interval type of scale. The categories in the sign/discrete system often are orthogonal to one another and cannot be construed as belonging to the same continuum. The sign/hierarchical systems also tend to have discrete categories but a clear representation of a hierarchy or taxonomy, is present in the items. (Note that a debate still exists as to whether or not the evaluative dimension of the cognitive taxonomy (Bloom, et al 19) is actually the highest level of cognition.) Category data system refers

to the attempt to limit the observation to one general aspect of classroom behavior. The procedure, as described by Medley and Mitzel (1963), is to "construct a definite set of categories into one and only one of which every unit observed can be classified" (p. 298). The matrix shown in Table 2 indicates that there are three types of category systems: discrete, hierarchical, and interval rating. As in the case of sign systems, discrete category systems refer to those observational schedules whose categorical boundaries do not approach the equal-appearing interval type of scale. Likewise, the categorical boundaries of the hierarchical type of category system tend to be discrete, but a clear representation of a hierarchy or taxonomy is present. The interval rating type of category system provides the observer with scales that tend to approach the equal-appearing interval type; there is a distinct continuum. In general, a category system differs from a sign system in that the category system is supposed to be exhaustive of behaviors of the type to be observed. Both the category and sign systems differ from field systems, primarily because the O is pre-set by the sign and category systems to look at very specific behaviors.

Sampling Unit Dimension

The sampling unit dimension is divided into three factors: time/events, events, and situational/events. The use of events in all three factors is to acknowledge that regardless of what sampling plan is employed by O the

Methods for Implementing Data Accretion Devices

Data Systems	Sampling Units	Time/Events	Events	Situational/Events
Field Systems	Commentary	Anecdotal Records (critical incidents) Diary Description (topical) Commentary	Specimen Description Diary Description (comprehensive) Field Unit Analysis Participant Observation Narrative Summaries	
Sign/Discrete Systems	Time Sampling	Behavioral Checklists Anecdotal Records (formatted)	Behavioral Checklists Event Sampling	
Sign/Hierarchical Systems	Time/Domain Sampling	Point-time Sampling	X	
Category/Discrete Systems	Point-fixed time Sampling Time Sampling	Point-time Sampling	Event Sampling Point-time Sampling	
Category/Hierarchical Systems	X	Point-time Sampling	Event/Domain Sampling Point-time Sampling	
Category/Interval Rating Systems	Point-fixed time Sampling Intrasection Ratings	Point-time Sampling Interseccion Ratings	Interseccion Ratings Postsession Ratings (Trait ratings)	

basic unit of analysis is a behavioral action--an event. When O samples behavior using the time/event factor, he typically employs a fixed time for obtaining an observation; only those behaviors occurring during a fixed time unit are treated as data. If the sampling unit is the events factor, O will describe, check, code, and/or rate only when a critical, topical or specified event occurs. Observations terminate for the target person or class, when the event occurs. The situational/events factor refers to a sampling plan during which time is the variable and the observation terminates only after some specified situation ends--the class, or snack period, for example. We may disregard here the fact that the time/events sampling units may be repeated during a defined situation. Event sampling, a procedure described by Wright (1960) as one which "singles out naturally segregated behavioral events of one or another class and records these events as they arise and unfold" (p. 75) is typically employed as a situational/events measure. Many of the other procedures found in the cells of the matrix of Table 2 are described by Wright (1960). Selected procedures not necessarily discussed by Wright will be examined here.

Wright (1960) defined trait ratings, as a process that "selects dimensions of behavior and bases judgments about them on observations during extended sequences of behavior" (p. 75). Postsession ratings would approach this definition. Other rating schemes termed intrasession ratings, are used during a session, sometimes in a time sampling format. Intersession ratings are used from one session to another until all items are observed and rated.

Goodlad, Klein and associates (1970) developed an anecdotal record type of procedure for which they supplied to Q a list of topics they were to observe intentionally. Such a procedure tends to create a closed system and provides different types of data. The anecdotal record/critical incidents and formatted anecdotal record tend to point up these differences.

One final significant addition is the point-time sampling procedure. In this procedure the Q examines the behavior of the target person only long enough to be sure what the behavior is, and then checks off the behavior in the appropriate category. This procedure can be used in a time sampling plan as long as the fixed unit of time is ample enough for Q to gather all the information needed. Such a procedure might be called a point-fixed time sampling procedure.

Section II. INSTRUMENT DESCRIPTION

A Description of Selected Examples of Observations in Selected Situations

1. Classroom Behavior Scale
2. Daily Ratings
3. Discrete Classroom Behavior Schedule
4. Evaluation Scale of Four- and Five-Year-Old Children
5. Intensity of Involvement Scale
6. Nursery School Behavior Record: Juice and Cracker Period
7. Observer Ratings of Children
8. Overview Snapshot Observational Technique
9. Reaction of Entry of Teachers
10. School and Classroom Observation Categories
11. Teachers' Attending Behaviors
12. Weekly Ratings

1. CLASSROOM BEHAVIOR SCALE

H. N. Sloane, Jr., J. L. Ralph, D. C. Cannon, and W. J. DeRisi

TYPE OF INSTRUMENT. This instrument uses both the category/discrete and category/interval rating system combined with a timed sampling plan. Here, then, is a combined use of time sampling and inter-session rating methods.

USAGE. The instrument was used in a correctional institution for boys. The boys were of junior high school age. The instrument was also used in an "adjustment" class consisting of students from the first four elementary grades.

VARIABLES MEASURED. The scale assesses desirable or undesirable student behaviors, the teacher's reactions to those behaviors, and the degree to which the teacher individualizes student contacts. Time spent on academic matters versus classroom management is also recorded.

INSTRUMENT DESCRIPTION. The scale was developed from a behavior analysis point-of-view. In each class five (5) children are selected for observation. A rating period lasts 30 seconds: the first 10 seconds are used for observing (the target child, teacher, class) and the remaining 20 seconds for scoring. Nine rating periods (or, 4 1/2 minutes) are used for each target child before the observer/rater turns his attention to another of the preselected children. The coding sheet contains a scoring matrix for each student. The horizontal dimension contain 9 columns for the 30 second rating intervals. The vertical dimension displays 6 categories of student and teacher behavior or interactions: (1) student behavior, (2) non-verbal interaction with the target child, (3) verbal interaction with the target child, (4) non-verbal other, (5) verbal other, and (6) interaction character. The latter category is complex and contains codes to indicate the type of interaction in respect to group size and academic relationship. In all, 28 different scores or score qualifications can be coded.

SAMPLE ITEMS. Undesirable Behavior: To be coded "U", the S must be emitting the following behavior within the 10 second rating period: (a) verbalizing aloud in any manner when prohibited, (b) making nonverbal noise, (c) unacceptable location, (d) disruptive motor behavior, (e) slow or improper getting or returning of material, (f) failing to begin task upon teacher's signal, (g) not listening or looking at teacher presentation, (h) unauthorized seat leaving, (i) speaking to teacher without raising hand, etc.

PSYCHOMETRIC DESCRIPTION. Inter-judge Reliability. Three different studies employing the Classroom Behavior Scale were, in part, useful for supplying inter-judge reliability data. Data is presented in terms of percent agreement for each of the six categories separately.

Agreement for most categories is high. Validity. Studies showing change in certain categories for experimental groups were reported.

COMMENTS. None.

AVAILABILITY. Howard N. Sloane, Jr., The Bureau of Educational Research, 308 MBH, The University of Utah, Salt Lake City, Utah 84112

REFERENCES. Sloane, H. N., Jr., Ralph, John, Cannon, D. C., & DeRisi, W. J. The Classroom Behavior Scale, (Unpublished observational scale, 1969.)

2. DAILY RATINGS

National Institute of Mental Health

TYPE OF INSTRUMENT. This instrument is primarily of the category/interval rating variety and uses the situations/event sampling plan. Basically, the postsession rating method is used. One part of the instrument uses the category/discrete system with the event sampling method.

USAGE. Used with preschool children.

VARIABLES MEASURED. This instrument focuses upon the child and examines: (1) play involvement, (2) nomadic play, (3) peer involvement, (4) separation reaction (upon leaving home), (5) acts of aggressiveness, (6) peer conflicts, and (7) excited instances.

INSTRUMENT DESCRIPTION. Observations with this instrument may take place at the child's home, in a car going to the center, and indoors and outdoors at the center. The length of observation is variable and depends upon the length of a particular classroom period or the time it takes to drive from the child's home to the center. For three dimensions 0 is required to rate S's behavior on continuums. Some scales have 11 points, others 3. For the aggressiveness dimension, 0 is to indicate first, any instance of aggression, and second, the response (on a 4-point scale) of the other child to the aggression. In addition, the nursery school day was divided into 15 different time periods for this schedule and 0 was to check any period in which S showed excitement.

SAMPLE ITEMS. Peer involvement - Inside free play. (3) will frequently seek out the other children in the playroom in order to play with them, or talk to them, or boss them, or tease them, or take something from them; (2) some time was spent interacting with some of the other children; (1) very seldom, if ever, had anything to do with another child.

PSYCHOMETRIC DESCRIPTION. No data available.

COMMENTS. Some items on this schedule are not pertinent to other settings.

AVAILABILITY: Charles F. Halverson, Jr., National Institute of Mental Health, Bethesda, Maryland.

REFERENCES. National Institute of Mental Health. Daily Ratings. (Unpublished observational rating scale, undated (a).)

(This instrument is still in the developmental stages and is therefore subject to change.)

3. DISCRETE CLASSROOM BEHAVIORS SCHEDULE

Joseph A. Cobb

TYPE OF INSTRUMENT. The procedures used here combine the category/discrete system with the timed sampling plan. The commentary method is used to supplement the data.

USAGE. Not indicated but appears useful for observing the young child.

VARIABLES MEASURED. Basically, a behavioral modification approach. The observed behaviors deal with academically appropriate and inappropriate actions on the part of the child. The categories are: attending, appropriate talking with teacher, appropriate talk with peer, volunteers, imitation, complies, self-stimulation, physical negative, destructiveness, inappropriate locale, noisy, play, inappropriate talk with teacher, inappropriate talk with peer, and non-compliance.

INSTRUMENT DESCRIPTION. Every six seconds the observer codes a child's behavior by placing a circle around the appropriate category on the coding sheet. The occurrence of a response to the child's actions is also recorded. Once the behaviors of all children in the classroom are recorded, a new coding sheet is used for a new set of observations. Space on the coding sheet is provided to indicate the academic activity taking place during the coding session as well as for other types of context description.

SAMPLE ITEMS. "Appropriate talking with teacher. This category can be checked when the pupil talks with the teacher about academic material whether in private as in independent work situations, or answers questions in other situations" (p.2). "Noisy. This category is to be used when the person talks loudly, yells, bangs books, scrapes chairs, or makes any sounds that are likely to be actually or potentially disruptive to others" (p.3).

PSYCHOMETRIC DESCRIPTION. No data available.

COMMENTS. There is some indication by Cobb that Patterson, Ray, and Shaw (1968) previously defined many of the behaviors described in the manual. However, no bibliographic data was supplied.

AVAILABILITY. J. A. Cobb, Oregon Research Institute, Eugene, Oregon.

REFERENCES. Cobb, J. A. Definitions of Discrete Classroom Behaviors. Eugene, Oregon: Social Learning Project, Oregon Research Institute, January, 1970.

4. EVALUATION SCALE OF FOUR- AND FIVE-YEAR-OLD CHILDREN

A. L. Butler, M. Church, and M. Swayze.

TYPE OF INSTRUMENT. It appears that this instrument uses the category/interval rating system combined with the events sampling plan.

USAGE. Twenty-five teachers used the scale in their kindergarten classrooms.

VARIABLES MEASURED. Four basic areas are assessed with this instrument: self-concept, child in relation to other people, child in relation to his physical environment, and the child in relation to the world of ideas.

INSTRUMENT DESCRIPTION. No information was available as to how O was to proceed with the observations. There is some indication that the instrument may be used at the very beginning and near the end of the school term. Each of the four major categories contains at least six scales. The second and fourth position of the five scales are described and S's behavior (the child's) is rated on each of the dimensions.

SAMPLE ITEMS. Involvement in task (self-concept) (2) Flits from one activity to another. Samples but does not become deeply involved. (4) Plans and persists in activity for the sake of the activity.

PSYCHOMETRIC DESCRIPTION. None reported.

COMMENTS. The procedures used here approach those of retrospective trace reports.

AVAILABILITY. See below.

REFERENCES. Butler, A. L. An Evaluation Scale for Four and Five-Year-Old Children. Bulletin of the School of Education (Indiana University), 1965, 41, (Whole No. 2).

5. INTENSITY OF INVOLVEMENT SCALE

B. McCandless and W. L. Hodges

TYPE OF INSTRUMENT. The procedures used here employ the category/interval rating system with a timed-sampling plan. The method used is a fixed-time point-time sampling approach.

USAGE. This instrument has been used almost entirely with preschool aged children but the authors feel that it may be "equally adaptable for older children."

VARIABLES MEASURED. The scale is concerned with measuring "task-involvement," or the degree to which the child is attending to a designated task. Recorded also are indications of interfering behaviors: behaviors that distract others. Activities are also recorded.

INSTRUMENT DESCRIPTION. The observer is asked to make five rounds of the children present in the classroom. Each observation lasts five seconds and the O is asked to be in a position to observe S's face for all of that time. Immediately after the observation the O rates the child's involvement by use of one of six categories: (1) unoccupied, (2) onlooking, (3) minimal-minimal, (4) minimal, (5) attention moderate, (6) complete.

SAMPLE ITEMS. 4. Minimal (M): The S works in desultory fashion, but has attention flickering on task at hand. He is working, but O infers that attention on the task is partial at most. Some unoccupied and on-looking may occur. In stories, he occasionally glances at the story teller, but is not obviously attending to any other activity; he may perhaps be fingering objects or making asides to another child, but is at least partially "with it." Two-to-four seconds of the 5 second observation period are clearly task-involved.

PSYCHOMETRIC DESCRIPTION. Inter-judge agreement. Agreements up to 96% have been reported.

COMMENTS. None

AVAILABILITY. Boyd McCandless, Emory University, Atlanta, Georgia 30322

REFERENCES. McCandless, B. R. Intensity of Involvement Scale. (Unpublished observation scale, Emory University, 1968.)

6. NURSERY SCHOOL BEHAVIOR RECORD: JUICE AND CRACKER PERIOD

National Institute of Mental Health.

TYPE OF INSTRUMENT. This instrument uses two different procedures: (1) a sign system combined with a situational/events sampling plan--event sampling method; and, (2) a category/interval rating system interfaced with the situational/events sampling plan--postsession ratings.

USAGE. Used with preschool-aged children.

VARIABLES MEASURED. "Gulping," defined as the amount of food (or liquid) consumed over the number of times the food (or liquid) came to lips, is one dimension measured. Also examined is rate of talk and interest in a story.

INSTRUMENT DESCRIPTION. This schedule is designed for a combined snack and story period. The O counts the frequency by which food and/or drink is brought to the S's lips. After the child is finished he determines how much food and/or liquid was consumed. These two figures are employed to determine a gulping index. During this session O also tallies each statement or attempt at verbalization that is followed by a pause. The child's interest in a story is rated on a five-point scale.

SAMPLE ITEMS. Attention to story. (1) Almost completely disinterested in story; (2) slightly interested, or generally no interest, but with a short period of high interest;..., (5) almost undivided and rapt attention to story.

PSYCHOMETRIC DESCRIPTION. No data available.

COMMENTS. This schedule applicable only under conditions where a snack period and story period are combined.

AVAILABILITY. Charles F. Halverson, Jr. National Institute of Mental Health, Bethesda, Maryland.

REFERENCES. National Institute of Mental Health. Nursery School Behavior Record: Juice and Cracker Period. Bethesda, Maryland: National Institute of Mental Health, Child Research Branch, 1970 (a).

(This instrument is still in the developmental stages and is therefore subject to change.)

7. OBSERVER RATINGS OF CHILDREN

W. Emmerich & G. Wilder

TYPE OF INSTRUMENT. This instrument uses intersession ratings employing an events sampling plan first and then the postsession rating method.

USAGE. Black and white Head Start children, $N > 500$, were observed during the Fall and Spring semesters. The data was examined both to validate the instrument and to make comparisons between subgroups and programs, over time.

VARIABLES MEASURED. W. Emmerich (1971) describes the instrument as a measure of "personal-social constructs."

INSTRUMENT DESCRIPTION. Two judges are required to make "simultaneous paired observations" and to record their perceptions first on a set of 127 unipolar scales and then on a set of 21 bipolar scales. The unipolar scales assess relatively specific categories of behavior including social motives, coping mechanisms, and activities of interest (e.g., gross motor behavior). The bipolar scales assess "broad personality dimensions." Each unipolar scale calls for an estimate of a behavior's frequency of occurrence during a specified period of observation, based upon the following four-point scale: (0) totally absent; (1) occurred once; (2) occurred more than once, but not continuously; (3) continuous during the observation period. The inferences called for when rating the bipolar scales are based upon the ratings the observers make on the set of unipolar scales.

SAMPLE ITEMS. (54): Engages in fantasy activity and, (73): Deliberately aggressive against property (unipolar scales). (1): withdrawn - involved and (16): Aimless - purposeful (bipolar scales).

PSYCHOMETRIC DESCRIPTION. Inter-judge Reliability: Pearson product - movement correlations were computed on all scales for rater pairs who observed at least 20 children simultaneously. For the 21 bipolar scales as a set, the median of the medians across pairs, sites, and periods was .63. For the 127 unipolar scales as a set, this overall median was .74. Emmerich (1971) notes that there was considerable difference from rater pair to rater pair and over sites.

COMMENTS. The use of ratings from the unipolar scales, as the basis for references (self-as-instrument) for the bipolar scales is an interesting procedure that should be investigated further.

AVAILABILITY. W. Emmerich, Educational Testing Service, Princeton, N.J.

- *Bott, H. M. Method in social studies of young children. Toronto University Studies in Child Development Series, No. 1. Toronto: University of Toronto Press, 1933.
- *Boyd, R. D., & deVault, M. V. The observation and recording of behavior. Review of Educational Research, 1966, 36, 529-551.
- Braun, S. J., Holzman, M. S., & Lasher, M. G. Teachers of disturbed preschool children: an analysis of teaching styles. American Journal of Orthopsychiatry, 1969, 39, 609-618.
- Braun, S. J., & Lasher, M. G. Preparing teachers to work with disturbed preschoolers. Cambridge, Mass.: Nimrod Press, 1970.
- Brown, B. B. The experimental mind in education. New York: Harper & Row, 1968.
- Brown, B. B. Experimentalism in teaching practice. Journal of Research and Development in Education, 1970, 4, 14-22.
- Brown, B. B., Ober, R. L., & Soar, R. Florida taxonomy of cognitive behavior. (Unpublished manuscript, 1968.)
- Buell, J., Stoddard, P., Harris, F. R., & Baer, D. M. Collateral social development accompanying reinforcement of outdoor play in a preschool child. Journal of Applied Behavior Analysis, 1968, 1, 167-173.
- Bushell, D., & Jacobson, J. The simultaneous rehabilitation of mothers and their children. Paper presented at the annual meeting of the American Psychological Association, San Francisco, 1968.
- Bushell, D., Wrobel, P., & Michaelis, M. Applying "group" contingencies to the classroom study behavior of preschool children. Journal of Applied Behavior Analysis, 1968, 1, 55-61.
- Butler, A. L. An evaluation scale for four- and five-year-old children. Bulletin of the School of Education (Indiana University), 1965, 41, (Whole No. 2).
- Caille, R. K. Resistant behavior in young children. Monograph of the Society for Research in Child Development, 1933, No. 11.
- Caldwell, B. M. & Honig, A. APPROACH: A procedure for patterning responses of adults and children: coding manual. Little Rock, Ark.: University of Arkansas, Center for Early Development and Education, 1970.

REFERENCES. Emmerich, W. Structure and Development of Personal-Social Behaviors in Preschool Settings. ETS-Head Start Longitudinal Study, Princeton, N.J.: Educational Testing Service, 1971.

Emmerich, W., & Wilder, G. Classroom observation rating scale (Personality). In Educational Testing Service, Disadvantaged Children and Their First School Experiences: From Theory to Operations. Princeton, N.J.: Educational Testing Service, 1969. (OEO Grant H-8256.) (ERIC ED 043 397)

- Caldwell, B. M., Honig, A. S., & Wynn, R. L. Coding manual for APPROACH: A procedure for patterning responses of adults and children. (Unpublished manuscript, undated.)
- Caldwell, B. M. A new approach to behavioral ecology. (Unpublished manuscript, undated.)
- Carlson, C. S., Arnold, C. R., Becker, W. C., & Madsen, C. H. The elimination of tantrum behavior of a child in an elementary classroom. Behavior Research and Therapy, 1968, 6, 117-119.
- *Cattell, R. B., & Digman, J. M. A theory of the structure of perturbation in observer ratings and questionnaire data in personality research. Behavioral Science, 1964, 9, 341-358.
- Challman, R. C. Factors influencing friendship among preschool children. Child Development, 1932, 3, 146-158.
- Chapple, E. D. The Interaction Chronograph: its evolution and present application. Personnel, 1949, 23, 295-307.
- Charlesworth, R., & Hartup, W. W. Positive social reinforcement in the nursery school peer group. Child Development, 1967, 38, 993-1002.
- Chasdi, E. H., & Lawrence, M. S. Some antecedents of aggression and effects of frustration in doll play. In J. Seidman (Ed.), The child: a book of readings. New York: Rinehart, 1958. Pp. 442-453.
- Chittenden, G. E. An experimental study in measuring and modifying assertive behavior in young children. Monograph of the Society for Research in Child Development, 1942, 7, No. 1.
- Cicirelli, V. The impact of Head Start: an evaluation of the effects of Head Start on children's cognitive and affective development. Washington, D.C.: Office of Research, Planning, and Program Evaluation, Office of Economic Opportunity, 1969.
- Cobb, J. A. Definitions of discrete classroom behaviors. Social Learning Project, Oregon Research Institute, Eugene, Oregon, 1970.
- Coller, A. R. Overhead snapshot observation technique (OSOT): Administration Manual. (Unpublished manuscript, Urbana, Illinois: Center for Instructional Research and Curriculum Evaluation (CIRCE), University of Illinois, 1970.)
- *Coller, A. R. The assessment of "self-concept" in early childhood education. Urbana, Illinois: ERIC Clearinghouse on Early Childhood Education, University of Illinois, 1971.

8. OVERVIEW SNAPSHOT OBSERVATIONAL TECHNIQUE (OSOT)

A. R. Collier

TYPE OF INSTRUMENT. This instrument, used to gather data for additional encoding at a later date employs the sign system, the category/discrete system and the category/interval rating systems with a point-time sampling method. A diagrammatic accretion device is employed to gather the data.

USAGE. The OSOT has been used to describe pictorially "a-day-in-the-life" of a multiaged-group kindergarten class and a "traditional" kindergarten class.

VARIABLES MEASURED. Besides providing a graphic display of transactions within a classroom context, five dimensions are evaluated by OSOT. These dimensions include: (1) the S's location in the classroom, (2) S's interactions with others, (3) S's encounters with instructional material, (4) S's attention to others and/or his involvement with instructional materials, and (5) the strenuousness or intensity of his motor activity. Sociometric type choice and various other types of social interactions can also be coded from the basic data.

INSTRUMENT DESCRIPTION. OSOT procedures are not fixed and are intended to be adopted for the particular local purpose. Typically, the OSOT procedure is to focus upon the first child on a list, observe for about 10 seconds (or as long as necessary to gather the pertinent data), record the data for about 10 seconds, and then focus upon the second child listed. However, if any of these children are interacting or close to others in the class, the observer reverts to "cluster" observations and records data for all those in the cluster. When this is done, the O focuses on the next child on the list whose behavior has not been recorded and the process continues. The O records notational symbols upon a diagram representing the classroom with furniture and other important aspects of the classroom displayed and labeled. The O locates the notational symbol on the diagram representing the actual location of the child; other notations are used to represent social interactions, sex, attention to others, involvement with materials, and level of motor activity. Initials and abbreviations are used to identify S's and type of instructional materials.

SAMPLE ITEMS. Motor Activity Level. (0) No overt movement; (1) moderate movement, no locomotion; (2) moderate movement, locomotion; (3) intensive movement, no locomotion; and (4) intensive movement, locomotion.

PSYCHOMETRIC DESCRIPTION. No data available.

- Combs, A. W. The professional education of teachers. Boston: Allyn and Bacon, 1965.
- Combs, A. W., & Soper, D. W. The relationship of child perceptions to achievement and behavior in the early school years. Gainesville: University of Florida, 1963. (USOE, Cooperative research project No. 814.)
- Conners, K., & Eisenberg, L. The effect of teacher behavior on verbal intelligence in Head Start children. Final Report. Baltimore: Johns Hopkins Hospital, 1966.
- Cooper, M., & Thomson, C. The observation of reinforcement behavior of teachers in Head Start classrooms and the modification of a teacher's attending behavior. Lawrence, Kansas: The University of Kansas Head Start Evaluation and Research Center, 1967.
- Cooper, W., Cicirelli, V. G., & Granger, R. L. The school environment measure. Athens, Ohio: Westinghouse Learning Corporation/Ohio University, 1968.
- Crawford, M. L. J., & Nicora, B. D. Measurement of human group activity. Psychological Reports, 1964, 15, 227-231.
- Crespin, D. Crespin system of interactional analysis. (Unpublished manuscript, undated.)
- Crooks, K. H. Guided Self-Analysis (GSA). Berkeley, California: Professional Development Systems, 1971.
- Cunningham, J. L., & Boger, R. P. Development of an observational rating schedule for preschool children's peer-group behavior. Paper presented at the annual meeting of the American Educational Research Association, New York City, 1971.
- Dawe, H. C. An analysis of two hundred quarrels of preschool children. Child Development, 1934, 5, 139-157.
- *Dawe, H. C. The child's experiences in communication. In N. S. Light (Ed.), Early Childhood Education: Forty-sixth Yearbook, National Society for the Study of Education, Part II. Chicago: The University of Chicago Press, 1947. Pp. 193-208.
- Digman, J. M. Child behavior ratings: Further evidence for a multiple-factor model of child personality. Educational and Psychological Measurement, 1965, 25, 787-799.

COMMENTS. Initial tryouts with the OSOT indicated that some revision was necessary. A revised version of OSOT will become available in the near future.

AVAILABILITY. Alan R. Collier, Institute for Development of Human Resources, 520 Weil Hall, University of Florida, Gainesville, Florida 32601

REFERENCES. Collier, A. R. Overhead Snapshot Observation Technique (OSOT): Administration Manual, Urbana, Illinois: Center for Instructional Research and Curriculum Evaluation (CIRCE), University of Illinois, 1970.

- DiLorenzo, L. T., Salter, R., & Brady, J. Prekindergarten programs for educationally disadvantaged children. N.Y. State Education Department, Office of Research and Evaluation, Albany, N.Y., 1969. (USOE Cooperative Research Project No. 3040.)
- Divola, A. J., Kaminsky, B. P., & Sternfeld, A. E. Performance profile for the severely and moderately retarded: teacher's manual. Ridgefield, N.J.: Educational Performance Associates, 1963.
- Divola, A. J., Kaminsky, B. P., & Sternfeld, A. E. Preschool and kindergarten performance profile: teacher's manual. Ridgefield, N.J.: Educational Performance Associates, 1970.
- Dopyera, J. D. Behavior-sanction-interaction: preliminary manual. (Unpublished manuscript, 1969.)
- Dopyera, J. D. Assessing the micro-environments of individual pre-school children: Final report for Office of Economic Opportunity. Syracuse University Head Start Evaluation and Research Project, Syracuse, N.Y., 1969. (OEO Research Contract #4120.)
- Dopyera, J. D., Hollingshead, L., & Lindstrom, D. Post-observation teacher rating scales (POT). (Unpublished observational scales, Syracuse, N.Y., Syracuse University, 1968.)
- *Dopyera, J. D., & Lay, M. Assessing the program environments of Head Start and other pre-school children. Addendum to Final Report for Office of Economic Opportunity. Syracuse University Head Start Evaluation and Research Project, Syracuse, N.Y., 1969. (OEO Research Contract #4120.)
- Dopyera, J. D., Lindstrom, D., & Hollingshead, L. Manual for integrated individual observation schedule. (Unpublished manuscript, 1968.)
- Dow, M. Playground behavior differentiating artistic from non-artistic children. Psychological Monographs, 1933, 45, 82-94.
- Dunnington, M. J. Behavioral differences of sociometric status groups in a nursery school. Child Development, 1957, 28, 103-111.
- Educational Testing Service. Classroom observation form. Office of Economic Opportunity, Head Start, 1966.
- Emmerich, W. Continuity and stability in early social development. Child Development, 1964, 35, 311-332.
- Emmerich, W. Continuity and stability in early social development: II. Teacher ratings. Child Development, 1966, 37, 17-27.

9. REACTION TO ENTRY OF TEACHERS

National Institute of Mental Health

TYPE OF INSTRUMENT. This instrument employs the postsession rating method.

USAGE. Used with preschool children.

VARIABLES MEASURED. Two scales measure the child's reactions as the teacher (1) entered the doorway (initial encounter), and (2) attempted to move close to the child.

INSTRUMENT DESCRIPTION. The two seven-point scales (with each point defined) are rated by 0 after observing the child's behavior after the teacher either enters the room or attempts to come close to the child.

SAMPLE ITEMS. Initial encounter. (1) child makes no negative responses and makes more than one positive response; (2) child makes no negative responses and makes one positive response; ... (5) child's reaction is slightly negative; ... (7) child gives no positive responses and he freezes or runs to mother.

PSYCHOMETRIC DESCRIPTION. No data available.

COMMENTS. When teacher behaviors are "staged", this observational procedure approaches that of observations in contrived situations. This instrument is still in the developmental stages and is therefore subject to change.

AVAILABILITY. Charles F. Halverson, Jr. National Institute of Mental Health, Bethesda, Maryland

REFERENCES. National Institute of Mental Health. Reaction to Entry of Teachers. (Unpublished observational rating scale, undated (c).)

- Emmerich, W. Children's personal and social development. In Educational Testing Service, Disadvantaged children and their first school experiences: Theoretical considerations and measurement strategies. Princeton, N.J.: Educational Testing Service, 1968. (OEO Contract 4206 and Grant CG-8256.) (ERIC-ED 037 486)
- Emmerich, W. Structure and development of personal-social behaviors in preschool settings. ETS-Head Start Longitudinal Study, Princeton, N.J.: Educational Testing Service, 1971.
- Emmerich, W., & Wilder, G. Classroom observation rating scale (Personality). In Educational Testing Service, Disadvantaged children and their first school experiences: From theory to operations. Princeton, N.J.: Educational Testing Service, 1969 (OEO Grant H-8256.) (ERIC-ED 043 397)
- Faigin, H. Social behavior of young children in the Kibbutz. Journal of Abnormal Social Psychology, 1958, 56, 117-129.
- Fischer, W. F. Sharing in preschool children as a function of amount and type of reinforcement. Genetic Psychology Monograph, 1963, 68, 219-245.
- Fite, M. D. Aggressive behavior in young children and children's attitudes toward aggression. Genetic Psychology Monograph, 1940, 22, 153-319.
- Fortune, J. C. A study of the generality of presenting behaviors in teaching preschool children. Memphis, Tenn.: Memphis State Univ., 1967. (ERIC-ED 016 285)
- Foster, J. Distribution of teacher's time in nursery school and kindergarten. Journal Educational Research, 1930, 22, 172-183.
- *Furst, N. Systematic classroom observation. In L. Deighton (Ed.), The encyclopedia of education. New York: Macmillan, in press.
- Galloway, C. M. An exploratory study of observational procedures for determining teacher nonverbal communication. (Unpublished doctoral dissertation, University of Florida, 1962.)
- Galloway, C. M. Nonverbal communication in teaching. Educational Leadership, 1966, 24, 55-63.
- Garfunkel, F. Classroom behavior form (CBP): Instructions for recording behavior of child in classroom situation. (Unpublished manuscript, 1968.)
- *Gellert, E. Systematic observation: A method in child study. Harvard Educational Review, 1955, 25, 179-195.

10. SCHOOL AND CLASSROOM OBSERVATION CATEGORIES

J. I. Goodlad, M. F. Klein, and Associates

TYPE OF INSTRUMENT. This instrument employs a sign system with an events sampling plan. The method is best described as a formatted anecdotal record.

USAGE. Used to assess about 158 classrooms in 67 schools, grades K-3.

VARIABLES MEASURED. Basically, a data collection procedure which employs anecdotal records to collect behavior. This instrument provided 0 with categories for observation. For example, milieu, instructional activities, subject matter, materials and equipment, involvement, interaction, inquiry, independence, curriculum balance, curricular adaptation, etc.

INSTRUMENT DESCRIPTION. The technique of anecdotal records was used here with the categories for observation spelled out in advance for 0.

SAMPLE ITEM. Curriculum Balance. The interest in this category is the range of organized human experience with which the class seems to deal. Are subjects and activities concentrated in a few fields or spread across the major divisions of knowledge? Are emphases identifiable?

PSYCHOMETRIC DESCRIPTION. None reported.

COMMENTS. None.

AVAILABILITY. See below.

REFERENCES. Goodlad, J. I., Klein, M. F., & Associates. Behind the Classroom Door. Worthington, Ohio: Charles A. Jones Publishing Company, 1970.

- Gewirtz, H. B., & Gewirtz, J. L. Caretaking settings, background events and behavior differences in four Israeli child-rearing environments: some preliminary trends. In B. M. Foss (Ed.), Determinants of infant behavior IV. London: Methuen and Co., 1969.
- Gilbert, E. Systematic observation: a method in child study. Harvard Educational Review, 1955, 25, 179-195.
- Goodenough, F. L. Interrelationships of behavior of young children. Child Development, 1930, 1, 29-47.
- Goodlad, J. I., Klein, M. F. & Associates. Behind the classroom door. Worthington, Ohio: Charles A. Jones Publishing Company, 1970.
- Gordon, I. J. Relationships between personality variables and classroom behavior of teaching interns. Gainesville, Florida: University of Florida, 1964. (USOE Cooperative Research Project No. 1717.)
- *Gordon, I. J. Studying the child in school. New York: John Wiley & Sons, Inc., 1966.
- *Gordon, I. J., & Jester, R. E. Techniques of observing teaching in early childhood and outcomes of particular procedures. In M. W. Travers (Ed.), Handbook of Research on Teaching (Rev. Ed.). (In press.)
- Graves, E. A. A study of competitive and cooperative behavior by the short sample technique. Journal of Abnormal and Social Psychology, 1937, 32, 343-351.
- Green, E. H. Friendship and quarrels among preschool children. Child Development, 1933, 4, 237-252.
- Green, E. H. Group play and quarreling among preschool children. Child Development, 1933, 4, 302-307.
- Gump, P. V. The classroom behavior setting: Its nature and relation to student behavior. Final Report. Lawrence, Kansas: Midwest Psychological Field Station, University of Kansas, 1967. (USOE Cooperative research project #OE-4-10-107.)
- Gump, P. V., & Sutton-Smith, B. Activity setting and social interaction: a field study. In R.E. Herron & B. Sutton-Smith (Eds.), Child's play. New York: John Wiley and Sons, Inc., 1971.
- Gutteredge, M. V. A study of motor achievements of young children. Archives of Psychology, 1939, 34, No. 244.

11. TEACHERS' ATTENDING BEHAVIORS

M. Cooper and C. Thomson

TYPE OF INSTRUMENT. Two different schedules are combined here. Both use a sign system interfaced with a situational/events sampling plan: the event sampling method.

USAGE. Used to assess the attending behaviors of preschool teachers undergoing different treatments in an attempt to modify attending behaviors.

VARIABLES MEASURED. Teacher behavior in terms of their attention and/or inattention to child responses, either appropriate or disruptive.

INSTRUMENT DESCRIPTION. It appears as if two observers are necessary. One observer determines if the teacher was attending to appropriate child responses or to disruptive child responses. A second observer who, as the first observer, records behavior in 10 second intervals, determines occurrences of the teacher's (1) attending to appropriate child responses, (2) lack of attention to child responses which could have been attended to.

SAMPLE ITEMS. Attention to disruptive responses was defined as giving attention to a child when he (1) physically disturbs another, (2) verbally disturbs another, (3) abuses materials, and (4) does not follow directions.

PSYCHOMETRIC DESCRIPTION. Inter-judge agreement. Agreements in a study employing the instrument were as low as 73% and as high as 95%. Validity. The instrument apparently is sensitive to treatment effects designed to change the teacher's rate of attending to appropriate and disruptive child responses.

COMMENTS. Another behavioral modification approach.

AVAILABILITY. The University of Kansas Head Start Evaluation and Research Center, University of Kansas, Lawrence, Kansas.

REFERENCES. Cooper, M. & Thomson, C. The Observation of Reinforcement Behavior of Teachers in Head Start Classrooms and the Modification of a Teacher's Attending Behavior. Lawrence, Kansas: The University of Kansas Head Start Evaluation and Research Center, 1967.

- Haggard, E. A., & Isaacs, K. S. Micromomentary facial expressions as indicators of ego mechanisms in psychotherapy. In L. A. Gottschalk and A. H. Auerbach (Eds.), Methods of research in psychotherapy. New York: Appleton-Century, 1966. Pp. 154-165.
- Hanfmann, E. P. Social structure of a group of kindergarten children. American Journal of Orthopsychiatry, 1935, 5, 407-410.
- *Hanley, E. M. Review of research involving applied behavior in the classroom. Review of Educational Research, 1970, 40, 597-626.
- *Hare, A. P. Handbook of small group research. New York: Free Press of Glencoe, 1962.
- Hargreaves, W. A., & Starkweather, J. A. Recognition of speaker identity. Language and Speech, 1963, 6, 63-67.
- Harris, F. R., Wolf, M. M., & Baer, D. M. Effects of adult social reinforcement on child behavior. In W. W. Hartup and N. L. Smothergill (Eds.), The young child: reviews of research. Washington, D.C.: National Association for the Education of Young Children, 1967. Pp. 13-26.
- Harris, F. R., Wolf, M. M., & Baer, D. M. Effects of adult social reinforcement on child behavior. Young Children, 1964, 20, 8-17.
- Hart, B. M., Reynolds, N. J., Baer, D. M., Brawley, E. R., & Harris, F. R. Effect of contingent and noncontingent social reinforcement on cooperative play of a pre-school child. Journal of Applied Behavior Analysis, 1968, 1, 73-76.
- Hart, B. M., & Resley, T. Establishing use of descriptive adjectives in the spontaneous speech of disadvantaged pre-school children. Journal of Applied Behavior Analysis, 1968, 1, 109-120.
- *Hartley, R. E., Frank, L. K., & Goldenson, R. N. Understanding children's play. New York: Columbia University Press, 1952.
- Hartup, W. W. Nurturance and nurturance-withdrawal in relation to the dependency behavior of preschool children. Child Development, 1958, 29, 191-201.
- *Hartup, W. W. Peer interaction and social organization. P. H. Mussen (Ed.), Carmichael's manual of child psychology (Third edition), Volume 2. New York: John Wiley & Sons, Inc., 1970.
- Hartup, W. W., Glazer, J. A., & Charlesworth, R. Peer reinforcement and sociometric status. Child Development, 1967, 38, 1017-1024.

12. WEEKLY RATINGS

National Institute of Mental Health

TYPE OF INSTRUMENT. This instrument employs the postsession rating method.

USAGE. Used with preschool children.

VARIABLES MEASURED. This instrument focuses upon the behavior of the child and contains scales for the following dimensions: (1) chronic fear; (2) fear when using equipment, (3) frenetic - impulsive, (4) impatience, (5) positive peer interaction, (6) negative peer interaction, (7) originality, (8) nurturance, female teacher, (9) nurturance, male teacher, (10) indication of intervention, (11) interest in obtaining help, and (12) seeking help.

INSTRUMENT DESCRIPTION. The O is asked to rate each target child on the twelve dimensions listed above. An eleven-point continuum is employed with the eleventh, sixth, and first points being defined.

SAMPLE ITEMS. (2) Fear when using equipment. Child's general orientation toward approaching physical activity or playground equipment: (11) Confident, daring, bold, adventurous (e.g., likes to swing, climb high, jump from the tree stump); (6) neither characteristically bold or cautious; (1) timid, over-cautious, needing adult help. Avoids activities, shows fear of heights or loss of balance.

PSYCHOMETRIC DESCRIPTION. No data available.

COMMENTS. Some items on this scale are not generalizable to other settings.

AVAILABILITY. Charles F. Halverson, Jr., National Institute of Mental Health, Bethesda, Maryland.

REFERENCES. National Institute of Mental Health. Weekly Ratings. (Unpublished observational rating scale, undated (b).)

(This instrument is still in the developmental stages and is therefore subject to change.)

- Hartup, W. W., & Keller, E. D. Nurturance in preschool children and its relation to dependency. Child Development, 1960, 31, 681-690.
- Harvey, O. J., et al. Teachers' belief systems and preschool atmospheres. Journal of Educational Psychology, 1966, 57, 373-381.
- Hattwick, B. W. The influence of nursery school attendance upon the behavior and personality of the preschool child. Journal of Experimental Education, 1937, 5, 180-190.
- Hattwick, L. A. & Sanders, M. K. Age differences in behavior at the nursery school level. Child Development, 1938, 9, 27-47.
- Haworth, M. R. An exploratory study to determine the effectiveness of a filmed puppet show as a group projective technique for use with children. (unpublished doctoral dissertation, Pennsylvania State University, 1956.)
- Heathers, G. Emotional dependence and independence in nursery school play. Journal Genetic Psychology, 1955, 87, 37-57.
- Henry, M. M., & Sharpe, D. F. Some influential factors in the determination of aggressive behavior in preschool children. Child Development, 1947, 18, 11-28.
- Hess, R. D., & Shipman, V. C. Early experience and the specialization of cognitive modes in children. Child Development, 1965, 34, 869-886.
- Hofman, H. Behavioral patterns in kindergarten and first grade. Merrill-Palmer Quarterly, 1957, 3, 136-144.
- Honig, A. S. Final report on APPROACH. Syracuse, New York: Syracuse University Children's Center, 1970.
- Institute for Developmental Studies, Interim Progress Report. Part II. Research and Evaluation. (Unpublished manuscript, IDS, New York University, 1968.)
- Jack, L. M. An experimental study of ascendant behavior in preschool children. U. Iowa Studies in Child Welfare, 1934, 9, 7-65.
- Jersild, A. T., & Fite, M. D. The influence of nursery school experience on children's social adjustments. Child Development Monograph, 1939, No. 25.
- Jersild, A. T., & Markey, F. V. Conflicts between preschool children. Monograph of the Society for Research in Child Development, No. 21.
- Johnson, M. W. The influence of verbal directions on behavior. Child Development, 1935, 6, 196-204.

References*

1. Adams (1970)
2. Barker and Wright (1955)
3. Becker, Thomas, and Carnine (1969)
4. Biddle (1967)
5. Biddle and Elleva (1964)
- 5a. Bloom, et al (1956) - cognitive taxonomy
6. Boyd and deVault (1966)
7. Brown (1968)
8. Butler (1965)
9. Caldwell (undated)
10. Chapple (1949)
11. Cobb (1970)
12. Collier (1970)
13. Collier (1971)
14. Combs and Soper (1963)
15. Cooper and Thomson (1967)
16. Crawford and Nicora (1964)
17. Dawe (1947)
18. Dopyera and Lay (1969)
19. Educational Testing Service (1966)
20. Emmerich (1971)
21. Emmerich and Wilder (1969)
22. (1955)
23. Goodlad, Klein and Associates (1970)
24. Gordon (1966)
25. Gordon and Jester (in press)
26. Gump (1967)
27. Haggard and Isaacs (1966)
28. Hanley (1970)
29. Hare (1962)
30. Hargreaves and Starkweather (1963)
31. Hartup (1970)
32. Haworth (1956)
33. Johnson & Bommarito (1971)
34. Kounin, Freesen, and Norton (1966)
35. Lofland (1971)
36. Loomis and Meyer (1959)

*Full citation in bibliography

- *Johnson, O. G., & Bommarito, J. W. Tests and measurements in child development: A handbook. San Francisco: Jossey-Boss Inc., Publishers, 1971.
- Katz, L. G. A study of the changes in behavior of children enrolled in two types of Head Start classes. (Unpublished doctoral dissertation, Stanford University, 1968.)
- Katz, L. G. Children and teachers in two types of Head Start classes. Young Children, 1969(a), 24, 342-349.
- Katz, L. G. Teaching in preschools: roles and goals. Urbana: National Laboratory on Early Childhood Education, University of Illinois, 1969(b). Children, 1970, 17, 43-48.
- Katz, L. G., Peters, D. L., & Stein, N. S. Observing behavior in kindergarten and preschool classes. Childhood Education, 1968, 44, 400-405.
- Keister, M. T. The behavior of young children in failure. In R. G. Barker, J. Kounin, & H. F. Wright (Eds.), Child behavior and development. New York: McGraw-Hill, 1943. Pp. 429-440.
- Koch, H. L. Popularity in preschool children: Some related factors and a technique for its measurement. Child Development, 1933, 4, 164-175.
- Kohn, M. The child as a determinant of his peer's approach to him. Journal Genetic Psychology, 1966, 109, 91-100.
- Kolstol, O. P. Language training of low-grade Mongoloid children. American Journal of Mental Deficiency, 1958, 63, 17-30.
- *Kounin, J. S. Discipline and group management in classrooms. New York: Holt, Rinehart, & Winston, 1970.
- Kounin, J. S., Freesen, W. V., & Norton, A. E. Managing emotionally disturbed children in regular classrooms. Journal of Educational Psychology, 1966, 57, 1-13.
- Landreth, C., Gardner, G. H., Eckhardt, B. C., & Prugle, A. D. Teacher-child contacts in nursery schools. Journal of Experimental Education, 1943, 12, 65-91.
- Levin, H., Hilton, T. L., & Landerman, G. F. Studies of teacher behavior. Journal of Experimental Education, 1957, 26, 81-91.
- Lippitt, R., & White, R. K. The "social climate" of children's groups. In R. G. Barker, J. S. Kounin, & H. F. Wright (Eds.), Child behavior and development, New York: McGraw-Hill, 1943.

37. McCandless (1968)
38. Medley and Mitzel (1963)
39. Medley and Smith (1969)
40. Miller (1969)
41. Miller (1970)
42. Murray (1970)
43. National Institute of Mental Health (undated (a))
44. National Institute of Mental Health (undated (b))
45. National Institute of Mental Health (undated (c))
46. National Institute of Mental Health (1970)
47. Ober (1968)
48. Ober, et al (1968)
49. Openshaw and Cyphert (1966)
50. Prescott (1967)
51. Schoggen (1964)
52. Schwartz and Schwartz (1955)
53. Sears and Dowley (1963)
54. Sher and Horner (1967)
55. Simon and Boyer (1968)
56. Sloane, Ralph, Cannon, and DeRise (1969)
57. Soar (1970)
58. Stake (1970)
59. Webb, Campbell, Schwartz and Sechrest (1966)
60. Weick (1968)
61. Wilensky (1965)
62. Wilensky (1966)
63. Withall (1956)
64. Wright (1960)
65. Wrightstone (1944)

- *Lofland, J. Analyzing social settings. Belmont, California: Wadsworth Publishing Company, Inc., 1971.
- *Longabaugh, R. A category system for coding interpersonal behavior as social exchange. Sociometry, 1963, 26, 319-344.
- Loomis, A. M. A technique for observing the social behavior of nursery school children. Child Development Monographs, 1931, No. 5.
- Loomis, E. A., & Meyer, L. R. Observation and recording -- a simultaneous process. American Journal of Orthopsychiatry, 1959, 29, 574-582.
- Maccoby, E., et al. Activity level and intellectual functioning in normal preschool children. Child Development, 1965, 36, 761-770.
- *Mahl, G. F. Exploring emotional states by content analyses. In I. Pool (Ed.), Trends in content analysis. Urbana: Univ. of Illinois Press, 1959. Pp. 89-130.
- *Mahl, G. F., & Schulze, G. Psychological research in the extralinguistic area. In T. A. Sebeok, A. S. Hayes, & M. C. Bateson (Eds.), Approaches to semiotics. London: Mouton and Co., 1964. Pp. 51-124.
- Manwell, E. M., & Mengert, I. G. A study of the development of two- and three-year-old children with respect to play activities. U. Iowa Studies in Child Welfare, 1934, 9, 66-114.
- Markey, F. V. Imaginative behavior of preschool children. Child Development Monograph, 1935, No. 18.
- Marshall, H. R., & McCandless, B. R. A study in prediction of social behavior of preschool children. Child Development, 1957(a), 28, 149-159.
- Marshall, H. R., & McCandless, B. R. Relationships between dependence on adults and social acceptance by peers. Child Development, 1957(b), 28, 413-419.
- Martin, G., England, G., Koprowy, E., Kilgour, K., & Pilek, V. Operant conditioning of kindergarten-class behavior in autistic children. Behavior Research and Therapy, 1968, 6, 281-294.
- McCandless, B. R. Intensity of Involvement Scale. (Unpublished observation scale, Emory University, 1968.)
- McCandless, B. R., Bilous, C. B., & Bennett, H. L. Peer popularity and dependence on adults in pre-school-age socialization. Child Development, 1961, 32, 511-518.

NOTE

The extensive bibliography which follows is the result of a combined effort. The staffs of the ERIC Clearinghouse on Early Childhood Education, Research for Better Schools, Inc., and the Institute for Development of Human Resources all contributed bibliographic information. I would like to thank all concerned for their cooperation and patience with respect to this project.

- McCandless, B. R., & Marshall, H. R. A picture-sociometric technique for preschool children and its relation to teacher judgments of friendship. Child Development, 1957, 28, 139-149.
- McClure, S. C. The effect of varying verbal instructions on the motor responses of preschool children. Child Development, 1936, 7, 276-290.
- McDaniel, E. L. Relationships between self-concept and specific variables in a low-income culturally different population. In J. Pierce-Jones (Ed.), Final Report on Head Start Evaluation and Research: 1966-67. University of Texas, Austin, 1967. (ERIC-ED 019 124)
- McGrew, W. C. Tentative list of social behavior patterns of preschool children. Edinburgh, Scotland: University of Edinburgh, 1968.
- McGrew, W. C. An ethological study of agonistic behavior in preschool children. In G. H. Bourne (Ed.), Proceedings of the second international congress of primatology, Atlanta, Georgia. New York: Karger Basel, 1969.
- McGrew, W. C. Aspects of social development in nursery school children with emphasis on introduction to the group. In H. G. Blurton-Jones (Ed.), Ethological studies of child behavior, Cambridge, England: Cambridge University Press, 1972.
- McGrew, W. C., & McGrew, P. L. Group formation in preschool children. In G. H. Bourne (Ed.), Proceedings of the third international congress of primatology, Zurich, New York: Karger Basel, 1970.
- McKee, J. P., & Leader, F. B. The relationship of socio-economic status and aggression to the competitive behavior of preschool children. Child Development, 1955, 26, 135-142.
- Medley, D. M. Measurement rationale. In Disadvantaged children and their first school experiences, ETS-OEO longitudinal study, theoretical considerations and measurement strategies. Princeton, New Jersey: Educational Testing Service, 1968.
- Medley, D. M. OSCAR goes to nursery school: A new technique for observing pupil behavior. Paper presented at the annual meeting of the American Educational Research Association, Los Angeles, California, 1969.
- *Medley, D. M., & Mitzel, H. E. Measuring classroom behavior by systematic observation. In N. L. Gage (Ed.), Handbook of research on teaching. Chicago: Rand McNally, 1963.
- Medley, P. M., Quirk, T. J., Schluck, C. G., & Ames, N. P. The personal record of school experiences: a manual for PROSE recorders. Princeton, N.J.: Educational Testing Service, 1971.

Observational Systems in Early Childhood Education:
A Bibliography

- *Adams, R. S. The classroom context. In W. J. Campbell (Ed.), Scholars in context: the effects of environments on learning. Sydney, Australia: John Wiley & Sons, Australasia Pty Ltd, 1970.
- Allen, E., Hart, B. M., Buell, J., Harris, F. R., & Wolf, M. M. Effects of social reinforcement on isolate behavior of a nursery school child. Child Development, 1964, 35, 511-518.
- Allen, E., Henke, L., Harris, F. R., Baer, D. M., & Reynolds, N. J. Control of hyperactivity by social reinforcement of attending behavior. Journal of Educational Psychology, 1967, 58, 231-237.
- Anderson, H. H. An experimental study of dominative and integrative behavior in children of preschool age. Journal of Social Psychology, 1937, 8, 335-345.
- Anderson, H. H. Domination and integration in the social behavior of young children in an experimental play situation. Genetic Psychology Monograph, 1937, 19, 341-408.
- Anderson, H. H. Domination and social integration in the behavior of kindergarten children and teachers. Genetic Psychology Monograph, 1939, 21, 287-385.
- Anderson, H. H. The measurement of domination and of socially integrative behavior in teacher's contacts with children. Child Development, 1939, 10, 73-89.
- Andrus, R., & Horowitz, E. L. The effect of nursery school training: Insecurity feeling. Child Development, 1938, 9, 169-174.
- Appel, M. H. Aggressive behavior of nursery school children and adult procedures in dealing with such behavior. Journal of Experimental Education, 1942, 11, 185-199.
- Arrington, R. E. Interrelations in the behavior of young children. New York: Bureau of Publications, Teachers' College, Columbia University, 1932.
- *Arrington, R. E. Time sampling in studies of social behavior: a critical review of techniques and results with research suggestions. Psychological Bulletin, 1943, 40, 81-124.

*
Contains a general review of observational techniques and/or issues.

- Medley, D. M., Schluck, C. G., & Ames, N. P. Recording individual pupil experiences in the classroom: A manual for PROSE recorders. Princeton, New Jersey: Educational Testing Service, (Undated).
- Meux, M. O. Studies of learning in the school setting. Review of Educational Research, 1967, 37, 539-562.
- Meyer, G. R., & Hoffman, M. J. Nurses' inner values and their behavior at work. A comparison of expressed preferences with observed behavior. Nursing Research, 1964, 13, 244-249.
- Meyer, W. J., & Thompson, G. G. Sex differences in the distribution of teacher approval and disapproval among sixth-grade children. Journal of Educational Psychology, 1956, 47, 385-396.
- Miller, L. Experimental variation of Headstart curricula: A comparison of current approaches. Annual report. University of Louisville, Louisville, Kentucky, 1969. (OEO research project #CG 8199.)
- Miller, L. Experimental variation of Headstart curricula: A comparison of current approaches. Progress report #5. University of Louisville, Louisville, Kentucky, 1970. (OEO research project #CG 8199.)
- Moore, S. B. The use of commands, suggestions, and requests, by nursery school and kindergarten teachers. Child Development, 1938, 9, 185-201.
- Moore, S. G. Correlates of peer acceptance in nursery school children. In W. W. Hartup and N. L. Smothergell (Eds.), The young child: Reviews of research. Washington, D.C.: National Association for the Education of Young Children, 1967.
- Moore, S. G., & Updegraff, R. Sociometric status of preschool children as related to age, sex, nurturance-giving, and dependence. Child Development, 1964, 35, 519-524.
- *Mouly, G. J. Research Methods. In R. L. Ebel (Ed.), Encyclopedia of Educational Research. Fourth Edition. London: Macmillan, 1969, 1144-52.
- Mueller, J. F. Exploratory study of the psychological ecology of a directed lesson in a nursery school setting. (Unpublished manuscript, Wayne State University, 1968.)
- Mummery, D. An analytical study of ascendant behavior of preschool children. Child Development, 1947, 18, 40-81.
- Murphy, L. B. Social behavior and child personality. New York: Columbia University Press, 1937.

- Bain, W. E. An analytical study of teaching in nursery school, kindergarten, and first grade. New York: Bureau of Publications, Teachers' College, Columbia University, 1928.
- Bales, R. F. Interaction process analysis: a method for the study of small groups. Cambridge, Mass.: Addison-Wesley, 1950
- Bandura, A., Ross, D., & Ross, S. A. Transmission of aggression through imitation of aggressive models. Journal of Abnormal Social Psychology, 1961, 63, 575-582.
- Barker, M. A technique for studying the social-material activities of young children. New York: Bureau of Publications, Teachers' College, Columbia University, 1930.
- *Barker, R. G. (Ed.), The stream of behavior. New York: Appleton-Century-Crofts, 1963.
- Barker, R. G., Dembo, T., & Lewin, K. Frustration and regression: an experiment with young children. U. of Iowa Studies in Child Welfare, 1941, 18, 1-314.
- Barker, R. G., & Wright, H. F. Midwest and its children, Evanston, Ill.: Row, Peterson and Co., 1955.
- Becker, W. C. & Krug, R. S. A circumplex model for social behavior in children. Child Development, 1964, 35, 371-396.
- Beaver, A. P. The initiation of social contacts by pre-school children. Monograph of the Society of Research in Child Development, 1932, No. 7.
- *Becker, W. C., Thomas, D. R., & Carnine, D. Reducing behavior problems: an operant conditioning guide for teachers. Urbana, Ill.: ERIC Clearinghouse on Early Childhood Education, University of Illinois, 1969.
- Belcher, E. L. A technique for diary analysis. Child Development, 1933, 3, 53-56.
- Beller, E. K. Dependency and independence in young children. Journal of Genetic Psychology, 1955, 87, 25-35.
- Beller, E. K. Teaching styles and their effects on problem-solving behavior in Headstart programs. In E. Grothberg (Ed.), Critical issues in research related to disadvantaged children. Princeton, New Jersey: Educational Testing Service, 1969. Pp. 1-22, Seminar #6.

- *Murray, C. K. (Ed.), Systematic observation. Journal of Research and Development in Education, 1970, 4 (Whole No. i).
- Muste, M. J., & Sharpe, D. F. Some influential factors in the determination of aggressive behavior in preschool children. Child Development, 1947, 18, 11-28.
- National Institute of Mental Health. Nursery school behavior record: juice and cracker period. Bethesda, Maryland: National Institute of Mental Health, Child Research Branch, 1970(a).
- National Institute of Mental Health. Nursery school behavior record: quiet room, games, and bells. Bethesda, Maryland: National Institute of Mental Health, Child Research Branch, 1970(b).
- National Institute of Mental Health. Coders manual: indoor free play. Bethesda, Maryland: National Institute of Mental Health, Child Research Bureau, (Unpublished observational schedule, 1971).
- National Institute of Mental Health. Daily ratings. (Unpublished observational rating scale, undated(a).)
- National Institute of Mental Health. Weekly ratings. (Unpublished observational rating scale, undated(b).)
- National Institute of Mental Health. Reaction to entry of teachers. (Unpublished observational rating scale, undated(c).)
- Nesbitt, M. Student and child relationships in nursery school. Child Development, 1943, 14, 143-166.
- *Ober, R. L. Theory into practice through systematic observation. Florida Educational Research and Development Council, Research Bulletin, IV, No. 1, 1968.
- Ober, R. L. The reciprocal category system. Journal of Research and Development in Education, 1970, 4, 34-51.
- Ober, R. L., et al. The development of a reciprocal category system for assessing teacher-student classroom verbal interaction. Paper presented at the annual meeting of the American Education Research Association, Chicago, 1968.
- Ogilvie, D., & Shapiro, B. Manual for assessing social abilities of one-to-six-year-old children. Cambridge, Mass.: Harvard University Preschool Project, 1969.

- Olson, W. C. Problem tendencies in children: a method for their measurement and description. Minneapolis: The University of Minnesota Press, 1930.
- Olson, W. C., & Hughes, B. O. Subsequent growth of children with and without nursery school experiences. In G. D. Stoddard (Ed.), Intelligence: Its nature and nurture. Original studies and experiments. Thirty-ninth Yearbook, National Society for the Study of Education, Part II. Chicago: The University of Chicago Press, 1940. Pp. 237-244.
- Openshaw, M. K., & Cyphert, F. R. The development of a taxonomy for the classification of teacher classroom behavior. Columbus, Ohio: The Ohio State University Research Foundation, 1966. (USOE Cooperative research project No. 2288.)
- Page, M. L. The modification of ascendant behavior in preschool children. U. of Iowa Studies in Child Welfare, 1936, 27, 243-269.
- Parten, M. B. Social participation among preschool children. Journal of Abnormal Social Psychology, 1932, 27, 243-269.
- Parten, M. B. Leadership among preschool children. Journal of Abnormal Social Psychology, 1933, 27, 430-440.
- Parten, M. B. Social play among preschool children. Journal of Abnormal Social Psychology, 1933, 28, 136-147.
- Parten, M. B., & Newhall, S. M. Social behavior of preschool children. In R. G. Barker, J. Kounin, & H. F. Wright (Eds.), Child behavior and development. New York: McGraw-Hill, 1943. Pp. 509-526.
- *Peak, H. Problems of objective observation. In L. Festinger and D. Katz (Eds.), Research methods in the behavioral sciences. New York: Holt, Rinehart, and Winston, 1953. Pp. 243-299.
- Pederson, F., & Fox, D. Codebook. (Unpublished manuscript, undated.)
- Pierce-Jones, J., Caldwell, W., & Lynn, E. L. Observer Rating Form. (Unpublished observational rating form, University of Texas, undated.)
- *Prescott, D. A. The child in the educative process. New York: McGraw-Hill, 1957.
- Prescott, E., Jones, E., with Kritchevsky, S. Group day care as a child-rearing environment. Report to Children's Bureau, U.S. Dept. of HEW. Pasadena, California: Pacific Oaks College, 1967.

- Berk, L. E. Effects of duration of a nursery school setting on environmental constraints and children's modes of adaptation. Normal, Ill.: Illinois State University, 1971(a).
- Berk, L. E. Effects of variations in nursery school setting on environmental constraints on the children's modes of adaptation, Child Development, 1971(b), 42, 839-871.
- Berne, E. VanC. An experimental investigation of social behavior patterns in young children. U. Iowa Studies in Child Welfare, 1930, 4, No. 3.
- Berne, E. VanC., & Kelly, H. G. The adequacy of samples of behavior obtained during short observation periods. U. Iowa Studies in Child Welfare, 1934, 9, 115-125.
- Berry, C. F., Shipman, V. C., & Hess, R. D. An analysis of preschool teachers' speech styles using the cognitive stimulation coding categories (CSCC). Paper presented at the annual meeting of the American Educational Research Association, Los Angeles, 1969.
- *Biddle, B. J. Methods and concepts in classroom research. Review of Educational Research, 1967, 37, 337-357.
- *Biddle, B. J., & Elleva, W. J. (Eds.), Contemporary research on teacher effectiveness. New York: Holt, Rinehart & Winston, 1964.
- Birdwhistell, R. L. An approach to communication. Family Process, 1962, 1, 194-201.
- Birnbrauer, J. S., Wolf, M. M., Kidder, J. D., & Togue, C. E. Classroom behavior of retarded pupils with token reinforcement. Journal of Experimental Child Psychology, 1965, 2, 219-235.
- Bishop, B. M. Mother-child interaction and the social behavior of children. Psychological Monographs, 1951, 65, (whole No. 11).
- Bloom, R., & Wilensky, H. Four observation categories for rating teacher behavior. Journal of Educational Research, 1967, 60, 464-65.
- Body, M. R. Patterns of aggression in nursery school. Child Development, 1955, 26, 3-11.
- Borstelmann, L. J. Sex of experimenter and sex-typed behavior of young children. Child Development, 1961, 32, 519-524.

- Quay, H., Sprague, R., Werry, J., & McQueen, M. Conditioning visual orientation of conduct problem children in the classroom. Journal of Experimental Child Psychology, 1967, 5, 512-517.
- Rabb, E., & Hewett, F. Developing appropriate classroom behaviors in a severely disturbed group of institutionalized kindergarten-primary children utilizing a behavior modification model. American Journal of Orthopsychiatry, 1967, 1, 275-285.
- *Rashed, M. The teacher, teacher style and classroom management. In E. Grotberg (Ed.), Critical issues in research related to disadvantaged children, Princeton, New Jersey: Educational Testing Service, 1969. Pp. 1-27, Seminar #2.
- Reed, M. F. Consecutive studies of the schoolroom behavior of children in relation to the teacher's dominative and socially integrative contacts. Applied Psychology Monograph, 1946, No. 11, 15-100.
- Reichenberg-Hackett, W. Practices, attitudes and values in nursery group education. Psychological Reports, 1967, 10, 151-172.
- Ricketts, A. F. A study of the behavior of young children in anger. U. of Iowa Studies in Child Welfare, 1934, 9, 161-170.
- *Rosenshine, B. Some criteria for evaluating category systems: An application to the Topic Classification System. In AERA Monograph Series on Curriculum Evaluation, No. 6. Classroom Observation. Chicago: Rand McNally, 1967.
- *Rosenshine, B. Evaluation of classroom instruction. Review of Educational Research, 1970, 40, 279-300.
- Schaefer, E. S., & Aaronson, M. Classroom Behavior Inventory. (Unpublished observational inventory, undated.)
- Schoggen, P. H. Mechanical aids for making specimen records of behavior. Child Development, 1964, 35, 985-988.
- Schoggen, P. H. Environmental forces in the everyday lives of children. In R. G. Barker (Ed.), The stream of behavior. New York: Appleton-Century-Crofts, 1963.
- Schroeder, R., & Flapan, D. Assessing aggressive and friendly behavior in young children. The Journal of Psychology, 1971, 77, 193-202.
- *Schwartz, M. S., & Schwartz, C. G. Problems in participant observation. American Journal of Sociology, 1955, 60, 343-353.

- Scott, M. Some parameters of teacher effectiveness as assessed by an ecological approach. Nashville, Tennessee: Demonstration and Research Center for Education (DARCEE), George Peabody College of Teachers, 1969.
- *Sears, P. S., & Dowley, E. M. Research on teaching in the nursery school. In N. L. Gage (Ed.), Handbook of research on teaching. Chicago: Rand McNally & Company, 1963.
- Sears, R. R., Rau, L., & Alpert, R. Identification and child rearing. Stanford, Calif.: Stanford University Press, 1963.
- Sher, A. B., et al. Procedures for classroom observation. (Unpublished manuscript, undated.)
- Sher, A. B., & Horner, V. M. A technique for gathering children's language samples from naturalistic settings. Paper presented at the annual meeting of the Society for Research in Child Development, New York City, 1967.
- Shure, M. B. Psychological ecology of a nursery school. Child Development, 1963, 34, 979-992.
- Silcock, A. A study of kindergarten interactions. In W. J. Campbell (Ed.), Scholars in context: the effects of environments on learning. Sydney, Australia: John Wiley & Sons, Australasia Pty Ltd, 1970.
- *Simon, A., & Boyer, E. G. (Eds.), Mirrors for behavior: An anthology of classroom observation instruments. Classroom Interaction Newsletter, 1968, 3, (Whole No. 2).
- Slater, E. Studies from the Center for Research in Child Health and Development, School of Public Health, Harvard University: Types, levels, and irregularities of response to a nursery school situation of forty children observed with special reference to the home environment. Monographs of the Society for Research in Child Development, 1939, 4, (Whole No. 2.)
- Sloane, H. N., Jr., Ralph, J. L., Cannon, D. C., & DeRise, W. J. The Classroom Behavior Scale, (Unpublished observational scale, 1969.)
- Smith, M. The agreement of observers concerning groups of behavior traits. Journal of Juvenile Research, 1931, 15, 246-256.
- Smith, M. E. A study of some factors influencing the development of the sentence in preschool children. Journal Genetic Psychology, 1935, 46, 182-212.

- Soar, R. S. An integrative approach to classroom learning. NIMH Project Number 5-R11 MH 01096 to the University of South Carolina, and 7-R11 MH 02045 to Temple University, Philadelphia, 1966. (ERIC-ED 033 749.)
- *Soar, R. Follow through model implementation. Gainesville, Florida: IDHR, College of Education, University of Florida, 1970. (Interim report on project #OEG-0-8-5224 N-4618 (100), U.S. Office of Education.)
- Soar, R. S., & Soar, R. M. An empirical analysis of selected Follow Through programs: An example of a process approach to evaluation. In I. J. Gordon (Ed.), Early Childhood Education. The Seventy-first Yearbook of the National Society for the Study of Education. Part II. Chicago, Illinois: University of Chicago Press, 1972. Pp. 229-260.
- Soar, R. S., Soar, R. M., & Ragosta, M. The validation of an observation system for classroom management. Paper presented at the annual meeting of the American Education Research Association, New York City, 1971.
- Solomon, G. O. The classification of measurement of image provoking cognitive behaviors of science teachers. (Unpublished doctoral dissertation, University of Florida, 1968.)
- Solomon, G. O. The analysis of concrete to abstract classrooms instructional patterns utilizing the TIP Profile. Journal of Research and Development in Education, 1970, 4, 52-61.
- Spaulding, R. L. Achievement, creativity and self-concept correlates of teacher-pupil transactions in elementary school classrooms. Urbana, Illinois: University of Illinois, 1963. (USOE Cooperative research project #1352.)
- Spaulding, R. L. The Durham education improvement program. In D. W. Buson, and J. Hill (Eds.), Psychology and early childhood education. Toronto, Ontario: Ontario Institute of Developmental Studies, 1966.
- Spaulding, R. L. An introduction to the use of the Coping Analysis Schedule for Educational Settings (CASES). Durham, N. Carolina: Education Improvement Program, Duke University, 1967(a).
- Spaulding, R. L. The Spaulding Teacher Rating Schedule (STARS). Durham, N. Carolina: Education Improvement Program, Duke University, 1967(b).
- Spaulding, R. Classroom behavior analysis and treatment. Durham, N. Carolina: Educational Improvement Program, Duke University, 1970.
- *Stake, R. E. The decision: Does classroom observation belong in an evaluation plan? In AERA Monograph Series on Curriculum Evaluation, No. 6. Classroom Observation. Chicago: Rand McNally, 1970.

- Stallings, J. SRI-Classroom observation instrument. Menlo Park, Calif.: Stanford Research Institute, 1970(a).
- Stallings, J. Training manual for classroom observation. Menlo Park, Calif.: Stanford Research Institute, 1970(b).
- Stellin, D. F. The usefulness of the I.Q. in predicting the performance of moderately mentally retarded children. American Journal of Mental Deficiency, 1967, 71, 561-562.
- Stern, C. Observation of substantive curricular input: manual. Los Angeles, Calif.: UCLA Head Start Evaluation and Research Center, 1968.
- Stern, V., & Gordon, A. Development of observation procedures for assessing preschool classroom environment, Document 4. New York: Bank Street Head Start Evaluation and Research Center, 1967.
- Stevenson, H. W. Social reinforcement with children as a function of CA, sex of E, and sex of S. Journal of Abnormal Social Psychology, 1961, 62, 147-154.
- Stevenson, H. W., & Stevenson, N. G. A method of simultaneous observation and analysis of children's behavior. The Journal of Genetic Psychology, 1961, 99, 253-260.
- Stevenson, N. G. A method of analyzing observational records. (Unpublished master's thesis, Stanford University, 1953.
- Stith, M., & Connor, R. Dependency and helpfulness in young children. Child Development, 1962, 33, 15-20.
- Swan, C. Individual differences in the facial expressive behaviors of preschool children: a study by the time sampling method. Genetic Psychology Monograph, 1938, 20, 557-650.
- Swift, J. Effects of early group experience: The nursery school and day care nursery. In M. L. Hoffman & L. W. Hoffman (Eds.), Review of child development research, New York: Russell Sage, 1964. Pp. 249-388.
- The Durham Educational Improvement Program, 1966-1967: EIP Research. Durham, North Carolina: EIP, 1967.
- Thomas, D. S. A symposium on the observability of social phenomena with respect to statistical analysis: an attempt to develop precise measurements in the social behavior field. Sociologues, 1932, 8, 436-456.
- Thomas, D. S., and Associates. Some new techniques for studying social behavior. New York: Bureau of Publications, Teachers' College, Columbia University, 1929.

- Thompson, C. G. The social and emotional development of preschool children under two types of educational program. Psychological Monograph, 1944, 56, No. 5 (Whole No. 258).
- Tucker, C. A study of mother's practices and children's activities in a cooperative nursery school. New York: Bureau of Publications, Teachers' College, Columbia University, 1940.
- University of Kansas Head Start Evaluation and Research Center. Social interaction observation procedure: training manual addition. (Unpublished observational schedule, undated.)
- Updegraff, R., & Herbet, E. K. An experimental study of the social behavior stimulated in young children by certain play materials. Journal Genetic Psychology, 1932, 42, 372-391.
- Van Alstyne, D. Play behavior and choice of play materials of preschool children. Chicago: University of Chicago Press, 1932.
- Van Alstyne, D., & Hattwick, L. A. A follow-up study of the behavior of nursery school children. Child Development, 1939, 10, 43-72.
- Vitz, P. Some changes in behavior of nursery school children over a period of seven weeks. Journal of Nursery Education, 1961, 16, 62-65.
- Wahler, R. G. Child-child interactions in free field settings: Some experimental analyses. Journal of Experimental Child Psychology, 1967, 5, 278-293.
- Walker, R. N. Some temperament traits in children as viewed by their peers, their teachers, and themselves. Monographs of the Society for Research in Child Development, 1967, 32, No. 6.
- Walsh, M. E. The relation of nursery school training to the development of certain personality traits. Child Development, 1931, 2, 72-73.
- Walters, J., Pearce, D., & Dohms, L. Affectional and aggressive behavior of preschool children. Child Development, 1957, 28, 15-26.
- Washburn, R. W. A simultaneous observation-and-recording method with specimen records of activity patterns in young children. Psychological Monographs, 1936, 47, 74-82.
- *Webb, E. J., Campbell, D. T., Schwartz, R. D., & Sechrest, L. Unobtrusive measures: nonreactive research in the social sciences. Chicago: Rand McNally & Company, 1966.

- Webb, J. N. Taxonomy of cognitive behavior: a system for the analysis of intellectual process. Journal of Research and Development in Education, 1970, 4, 23-33.
- *Weick, K. E. Systematic observational method. In G. Lindzey and E. Aronson (Eds.), The Handbook of Social Psychology, Vol. 2 (2nd ed.), Reading, Mass.: Addison-Wesley Publishing Company, 1968.
- White, M. A., & Williams, H. M. The approach-withdrawal pattern in the social behavior of young children. The Journal of Genetic Psychology, 1939, 54, 73-84.
- Wilensky, H. Preschool observations: Description of instruments and findings. (Unpublished manuscript, Institute for Developmental Studies, New York Medical College, 1965.)
- Wilensky, H. Observational techniques in preschool classrooms. (Unpublished manuscript. Institute for Developmental Studies, New York University, 1966.)
- Withall, J. An objective measurement of a teacher's classroom interactions. Journal of Educational Psychology, 1956, 47, 203-212.
- *Withall, J. Observing and recording behavior. Review of Educational Research, 1960, 30, 496-512.
- Wolf, M. M., Resley, T., Johnston, M. K., Harris, F. R., & Allen, E. Application of operant conditioning procedures to the behavior problems of an autistic child: A follow-up and extension. Behavior Research and Therapy, 1967, 5, 103-111.
- Wright, H. F. Psychological development in midwest. Child Development, 1956, 27, 265-286.
- *Wright, H. F. Observational child study. In P. H. Mussen (Ed.), Handbook of research methods in child development. New York: John Wiley & Sons, 1960.

Postscript

The Educational Resources Information Center/Early Childhood Education Clearinghouse (ERIC/ECE) is one of a system of 18 clearinghouses sponsored by the United States Office of Education to provide the educational community with information about current research and developments in the field of education. The clearinghouses, each focusing on a specific area of education, (such as early childhood, reading, linguistics, and exceptional children), are located at universities and institutions throughout the United States.

The clearinghouses search systematically to acquire current, significant documents relevant to education. These research studies, speeches, conference proceedings, curriculum guides, and other publications are abstracted, indexed, and published in Research in Education (RIE), a monthly journal. RIE is available at libraries, or may be ordered from the Superintendent of Documents, U. S. Government Printing Office, Washington, D. C. 20402.

Another ERIC publication is Current Index to Journals in Education (CIJE), a monthly guide to periodical literature which cites articles in more than 560 journals and magazines in the field of education. Articles are indexed by subject, author, and journal contents. CIJE is available at libraries, or by subscription from CCM Information Corporation, 909 Third Avenue, New York, New York 10022.

The Early Childhood Education Clearinghouse (ERIC/ECE) also distributes a free, current awareness newsletter which singles out RIE and CIJE articles of special interest, and reports on new books, articles, and conferences. The ERIC/ECE Newsletter also describes practical projects currently in progress, as reported by teachers and administrators. For more information, or to receive the Newsletter write: ERIC/ECE Clearinghouse, 805 W. Pennsylvania Avenue, Urbana, Illinois 61801.

ORDER INFORMATION

References which have ED numbers may be ordered from ERIC Document Reproduction Service (EDRS), at Leasco Information Products, Inc. (In those few cases where availability is other than through EDRS, ordering information is given after the individual title and annotation.)

1. Address orders to:

EDRS
Leasco Information Products, Inc.
P.O. Box Drawer O
Bethesda, Maryland 20014

2. Give the title and ED number for each item ordered.

3. Price Schedule:

- a. The price for each title ordered in Microfiche (MF) (transparent filmcard) is \$0.65. (To read MF you need a microfiche reader, available in most libraries.)
- b. The price for each title ordered in Hardcopy (HC) (photocopy reproduction) is computed according to the number of pages listed with the entry.

Pages	Price
1 - 100	\$ 3.29
101 - 200	6.58
201 - 300	9.87
301 - 400	13.16
401 - 500	16.45
Each additional 1 - 100 page increment	3.29

4. Postage is included in the above rates. There is no handling charge.
5. Payment must accompany orders under \$10.00
6. Orders must be in writing.

ERIC CLEARINGHOUSES--CURRENT ADDRESSES

ADULT EDUCATION

107 Roney Lane
Syracuse, New York 13210

COUNSELING & PERSONNEL SERVICES

Room 2108
School of Education
University of Michigan
Ann Arbor, Michigan 48104

THE DISADVANTAGED

Teachers College - Box 40
Columbia University
525 West 120th Street
New York, New York 10027

*EARLY CHILDHOOD EDUCATION

University of Illinois
805 West Pennsylvania Avenue
Urbana, Illinois 61801

EDUCATIONAL ADMINISTRATION MANAGEMENT

University of Oregon
Library--South Wing
Eugene, Oregon 97403

EDUCATIONAL MEDIA & TECHNOLOGY

Institute for Communication
Research
Stanford University
Stanford, California 94305

EXCEPTIONAL CHILDREN

Council for Exceptional Children
1411 S. Jefferson Davis Highway
Suite 900
Arlington, Virginia 22202

HIGHER EDUCATION

George Washington University
One Dupont Circle--Suite 630
Washington, D.C. 20036

JUNIOR COLLEGES

University of California
Powell Library--Room 96
405 Hilgard Avenue
Los Angeles, California 90024

LANGUAGE & LINGUISTICS

Modern Language Association
of America
62 Fifth Avenue
New York, New York 10011

LIBRARY & INFORMATION SCIENCES

American Society for Information
Science
1140 Connecticut Avenue, N.W. Room 804
Washington, D.C. 20036

READING AND COMMUNICATION SKILLS

National Council of Teachers of English
1111 Kenyon Road
Urbana, Illinois 61801

RURAL EDUCATION & SMALL SCHOOLS

New Mexico State University
Box 3AP
Las Cruces, New Mexico 88001

SCIENCE & MATHEMATICS EDUCATION

Ohio State University
1460 West Lane Avenue
Columbus, Ohio 43221

SOCIAL STUDIES/SOCIAL SCIENCE EDUCATION

855 Broadway
Boulder, Colorado 80302

TEACHER EDUCATION

One Dupont Circle - Suite 616
Washington, D.C. 20036

TESTS, MEASUREMENT, & EVALUATION

Educational Testing Service
Rosedale Road
Princeton, New Jersey 08540

VOCATIONAL & TECHNICAL EDUCATION

Ohio State University
1900 Kenney Road
Columbus, Ohio 43212

*ERIC/ECE is responsible for research documents on the physiological, psychological, and cultural development of children from birth through age eight, with major focus on educational theory, research and practice related to the development of young children.

8. OVERVIEW SNAPSHOT OBSERVATIONAL TECHNIQUE (OSOT)

A. R. Coller

TYPE OF INSTRUMENT. This instrument, used to gather data for additional encoding at a later date employs the sign system, the category/discrete system and the category/interval rating systems with a point-time sampling method. A diagrammatic accretion device is employed to gather the data.

USAGE. The OSOT has been used to describe pictorially "a-day-in-the-life" of a multiaged-group kindergarten class and a "traditional" kindergarten class.

VARIABLES MEASURED. Besides providing a graphic display of transactions within a classroom context, five dimensions are evaluated by OSOT. These dimensions include: (1) the S's location in the classroom, (2) S's interactions with others, (3) S's encounters with instructional material, (4) S's attention to others and/or his involvement with instructional materials, and (5) the strenuousness or intensity of his motor activity. Sociometric type choice and various other types of social interactions can also be coded from the basic data.

INSTRUMENT DESCRIPTION. OSOT procedures are not fixed and are intended to be adopted for the particular local purpose. Typically, the OSOT procedure is to focus upon the first child on a list, observe for about 10 seconds (or as long as necessary to gather the pertinent data), record the data for about 10 seconds, and then focus upon the second child listed. However, if any of these children are interacting or close to others in the class, the observer reverts to "cluster" observations and records data for all those in the cluster. When this is done, the O focuses on the next child on the list whose behavior has not been recorded and the process continues. The O records notational symbols upon a diagram representing the classroom with furniture and other important aspects of the classroom displayed and labeled. The O locates the notational symbol on the diagram representing the actual location of the child; other notations are used to represent social interactions, sex, attention to others, involvement with materials, and level of motor activity. Initials and abbreviations are used to identify S's and type of instructional materials.

SAMPLE ITEMS. Motor Activity Level. (0) No overt movement; (1) moderate movement, no locomotion; (2) moderate movement, locomotion; (3) intensive movement, no locomotion; and (4) intensive movement, locomotion.

PSYCHOMETRIC DESCRIPTION. No data available.