AN OBJECTIVE BEHAVIOR RECORD FOR

USE IN A NURSERY SCHOOL

by

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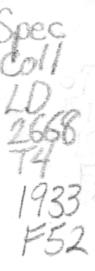
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INTRODUCTION

The purpose of this study has been to devise forms for recording the spontaneous behavior of nursery school children and to test the reliability and the validity of the records obtained on these forms as measures of certain phases of the personality development of the children.

The two aspects of personality development chosen are (1) social adjustment as evidenced by the number and kind of the child's contacts with other individuals and (2) tendencies toward constructive and group activity as evidenced by the type of work in which he engages, and the extent to which he works in a group.

This problem has grown out of the need felt by the staff of the nursery school at the Kansas State College of Agriculture and Applied Science for some adequate record of the behavior of children in the school. To have such a record, which might be taken at intervals while the child is attending the school, has seemed necessary for three reasons. First, such a record would indicate to some extent the success of the policies carried out in the nursery school. Second, the results of such a record, taken at intervals, should indicate the development of each child and suggest specific problems that should be overcome if the child is to become socially

adjusted. Third, the data collected in such records would be helpful in making out the annual report to parents. In reviewing the work being done in other schools it seems that they too have felt such a need. In order to fulfill this need these records should be not only reliable and valid, but should be sufficiently simple to be practical for use in any standard nursery school.

It is hoped that this study may add somewhat to the progress that is being made toward finding some reliable means of measuring personality traits. One obstacle to accomplishing this, mentioned by Brooks (6, p. 364) is the fact that personality traits are not absolute qualities which exist in fixed amounts. He suggests that this "obstacle may be partially removed by basing all ratings upon personal knowledge of specific responses revealing a given trait, rather than upon a hazy general impression which so frequently includes very few pertinent observed responses." The possible value of the present study lies in the fact that it makes use of specific responses rather than the subjective ratings of such traits.

REVIEW OF LITERATURE

The literature that proved helpful in the organization of the present study seems naturally to fall into three

groups. The first is a general survey of record taking in nursery schools. The second group includes the studies which have to do more specifically with the social responses of preschool children. The third group relates to constructive and group activities.

The technique of record taking in nursery schools has not been perfected to a great degree, as the nursery schools themselves are comparatively new. The records which have been used most extensively in the nursery schools are physical examination records, mental examination records, records of routine activities, family and individual histories, running diaries, interview outlines and descriptions, rating scales, questionnaires, and daily home and school reports.

Behavior records and personality records of nursery school children have been among the last to be developed. Moore (12) reached the conclusion from her study that children of two and three years have already established very different patterns of behavior in such aspects of their personality as initiative, perseverance, creative activity, self-reliance, and friendliness. As nursery schools are interested primarily in the development of such personality patterns and in understanding them, it would seem important to have objective records which would indicate the development of such patterns.

That much more significant results may be obtained by confining observations to a clearly defined and restricted problem, than by collecting a mass of material in hope that something significant will occur is the opinion of Ezekiel (7) who has made a contribution to the mechanics of record taking. She has devised two "short cut" forms of records for collecting qualitative and quantitative data.

Anderson (1) discusses two distinct procedures for systematic observation which lend themselves to studies of play activities and social behavior. The first is "the technique of situational analysis" in which the procedure is based on the fact that situations of a specific type recur again and again in the lives of individuals or groups. The second type is the "technique of time sampling" or the short sample method. This has been developed by Olsen, Thomas, and other workers. This technique "introduces no control in the natural situations beyond that of recording events during a constant period of time." (1, p. 13)

As the present study is concerned with the social development of the preschool child, a particular study was made of the available literature on this phase of objective record taking in nursery schools.

Young (17) describes two types of studies that have been used in the investigation of social behavior and personality.

These are the "cross-sectional" or structural and "historico-genetic" or functional. The "cross-sectional" studies seek to measure the behavior and personality with which they deal while the "historico-genetic" studies attempt to describe the genesis of the subject matter with particular reference to social setting. The studies to be reviewed are of the "cross-sectional" type.

One of the most recent studies of the social contacts of preschool children is the one by Beaver (3). The author is of the opinion that leadership, domination, resistance, and submission are specific factors to be reckoned with, even at 20 months of age. In studying these behavior patterns the four types of children's contacts observed are (1) material verbal, (2) material non-verbal, (3) non-material verbal, (4) non-material, non-verbal.

Loomis (11, p. 55) made a study of physical contacts as an index of personality because as she said, "physical contacts seem to have the quality of objectivity that is desired in social studies." In her analysis of responses to physical contacts she found there was a suggestion of consistency of behavior when noting the five children who received the largest number of cooperative responses and the smallest number of resistant responses.

Washburn (16) uses three five minute periods of obser-

vation for grading the reactions of children in a new social situation. In the first period were recorded the number of attention shifts, the number of contacts both with adults and with children, and the responsive or unresponsive behavior of the child. In the second period was recorded the amount of time the child was active. In the third period was recorded the number of times he spoke but not the words that were used.

Bridges (5) describes a social development score made up of two sections -- relations with children, and relations with adults. This score is then subdivided into socially desirable and undesirable forms of behavior. Bridges states that the subjectivity of the usual rating scale is avoided by the method of scoring occurrence of specific types of behavior under given situations.

The recording technique of Arrington (2) required simultaneous observation of the same child by two persons. One observed, in terms of absolute duration, four types of behavior -- use of material, inactive contact with material, physical activity not involving material, and no overt bodily activity. The other observer recorded the behavior that occurred within five second intervals.

A third class of literature reviewed was that dealing with group and constructive activity.

Parten (13) gives the following classification of activity: (1) unoccupied, (2) independent or isolated play, (3) parallel activity, (4) onlooker, (5) supplementary, (6) cooperative.

Blatz and Bott (4, p. 115-121) describe constructive activity as consisting of four stages. They are: (a) aimless movements, which are simply a release of energy; (b) manipulation, or exploration of sense properties of environment, which is highly characteristic of two year olds; (c) construction, which appears sometime in the third year when "some idea of pattern, design and use enters into the child's activity"; (d) social uses, when the child begins to perceive a use for his construction beyond the activity of the moment.

METHODS

Subjects

The subjects used for this study were twenty-four children enrolled in the nursery school at this college. The ages of these children ranged from 20 months to 58 months at the time the records were taken. The nursery school was divided into two groups; in the first group were all the children under three years and in the second group were all those above three years. These two groups were in separate

rooms during the period in which records were made. Each group was under the supervision of two teachers who were assisted by the students taking the laboratory work in the course, Child Care and Training I.

Plan of Procedure

In order to get an estimate of the social adjustment of each child the technique of situational analysis was used. A form was devised for recording during the work period, the number and nature of the contacts initiated and received by the child, his responses to contacts initiated by others, and the responses of other children to his contacts. This was called the contact record.

The time sampling technique was used to observe each child's tendencies toward constructive and group activity. A record form was devised to show the proportion of time the child's activity was constructive and what proportion of time his activity was spent in group play. This was called the activity record.

Four records on each observational form were made for each of the 24 children included in this study. Two of these records were made simultaneously by two observers, F and T. The other two were made by T and were labeled T_1 and T_2. Not more than one week elapsed between any two recordings for

each child and the majority of the recordings for each child were made on consecutive days. The two recorders practiced for one week previous to collecting permanent data in order to train themselves for accuracy in recording.

A rating on a behavior scale was made for each child by his two teachers previous to the making of the observational records and again after the records were completed. This was done to furnish a partial check on the validity of the data obtained from the records.

Description of Record Forms

Preliminary record forms of various types were tried before the present forms were selected. In the case of the contact record the problem was to find the terms that would most clearly define in an objective manner the behavior patterns to be studied. In addition it seemed desirable to make provision for recording contact and response simultaneously. The contact record was designated Blank I. (See Appendix).

The adult contacts with the child in this study are classified as Justin and Reed (10) classified them in their study. This seemed adequately to include all contacts initiated by the teachers.

The children's responses to adult contacts were classified as <u>cooperation</u>, <u>resistance</u>, <u>flight</u>, and <u>indifference</u>.

The first three of these were employed by Loomis (11) who used the term _passivity_ instead of _indifference._

The activity record was designated Blank II. (See Appendix). The headings used in this blank were adapted from those used by Parten (13). Because of the fact that _constructive_ and _non-constructive_ activity were being observed in this study these headings were added. The one minute interval was used in these observations following the suggestion by Van Alstyne (14) that one minute is the limit of accuracy. The procedure was to check on the record the type of activity the child was engaged in at the beginning of each minute.

The observations recorded on Blanks I and II were made under the following regulations: (1) Records were taken during the period of spontaneous play. (2) No record was made on any child until there were at least four children in the group. (3) Each child had completed his routine activities. (4) The record period was 15 minutes in length. (5) Disciplinary procedure of a prolonged nature was discarded. The first three rules were those used by Beaver (3). The 15 minute record was suggested by Loomis (11) as a better length for a single observation than her original 30 minute period. The criterion for discarding any disciplinary procedure was taken from the study by Walker (15). She suggests as a

method of improving procedure, "to discard any observation
in which restriction by an adult affected more than the
immediate activity of a child, and also any in which adult
interference was so frequent as to interfere with the
child's spontaneous contacts." However, when the teacher's
interference was of the nature of directing activity, it
did not require omission of the observation unless it
involved the putting away of materials for the morning.

The scale used in securing the behavior ratings was
adapted from one developed at the University of California.
Each teacher was asked to rate each child and a score was
computed for each one according to instructions given for
scoring the ratings. The method used for securing the score
for each child was that which Anderson (1) calls the compos-
ite scale. According to this method, the sum of all the rat-
ings on individual items is taken as the child's score on
the rating scale.

RESULTS

Basic Data

The data recorded on the contact and activity records
were tabulated and analyzed. The results of this analysis
are shown in Table I. The letters at the top of the table
designate the children and are arranged in the

Table I. Analysis of Data

Children	A 20	B 20	C 20	D 29	E 29	F 30	G 30	H 30	I 32	J 32	K 33	L 34	M 40	N 40	O 45	P 48	Q 49	R 51	S 53	T 54	U 55	V 56	W 58	X 58
Total number contacts	18.6	13.3	7.6	23.3	26.3	4.0	20.3	12.6	10.6	27.3	17.3	23.6	25.6	25.0	32.6	25.9	18.3	31.6	19.0	26.6	25.3	29.0	23.9	16.9
Total number contacts initiated by others	8.3	8.3	4.0	11.3	13.3	3.0	9.0	8.6	4.3	11.0	7.0	8.0	12.0	9.0	16.6	9.6	7.0	13.3	14.0	10.3	8.6	13.0	8.6	4.3
Number contacts initiated by other children	5.3	5.6	1.3	5.6	4.6	2.0	3.3	7.3	3.0	6.6	5.0	6.6	7.6	6.6	8.6	6.0	1.6	9.3	8.0	10.0	6.0	7.3	6.3	3.3
Number contacts initiated by adults	3.0	2.6	2.6	5.6	8.6	1.0	5.6	1.3	1.3	4.3	2.0	1.3	4.3	2.3	8.0	3.6	5.3	4.0	6.0	0.3	2.6	5.6	2.3	1.0
Total number self-initiated contacts	10.3	5.0	3.6	12.0	13.0	1.0	11.3	4.0	6.3	16.3	10.3	15.6	13.6	16.0	16.0	16.3	11.3	18.3	5.0	16.3	16.7	16.0	15.3	12.6
Number self-initiated contacts with children	8.6	4.6	3.0	6.0	10.3	1.0	10.3	3.3	2.3	11.6	5.6	12.0	10.6	11.0	9.3	11.0	6.6	11.6	4.3	12.0	7.7	10.3	10.0	11.0
Number self-initiated contacts with adults	1.6	0.3	0.6	6.0	2.6	0.0	1.0	0.6	4.3	4.6	4.6	3.6	3.0	5.0	6.6	5.0	4.6	6.6	0.6	4.3	9.0	5.6	5.3	1.6
Total number of adult contacts	4.6	2.9	3.2	11.6	11.2	1.0	6.6	1.9	5.6	8.9	6.6	4.9	7.3	7.3	14.6	8.6	9.9	10.6	6.6	4.6	11.6	11.2	7.6	2.6
Adult relationship score	24.0	30.0	42.0	49.0	44.0	20.0	32.0	15.0	53.0	33.0	44.0	24.0	29.0	30.0	40.0	35.0	55.0	33.0	38.0	18.0	52.0	39.0	32.0	17.0
Child relationship score	76.0	70.0	58.0	51.0	56.0	80.0	68.0	85.0	47.0	67.0	56.0	76.0	71.0	70.0	60.0	65.0	45.0	67.0	62.0	82.0	48.0	61.0	68.0	83.0
Socially desirable behavior score	48.0	51.0	62.0	69.0	45.0	33.0	58.0	44.0	55.0	63.0	57.0	77.0	68.0	64.0	84.0	73.0	85.0	61.0	72.0	77.0	51.0	65.0	79.0	72.0
Minutes spent in constructive activity	0.0	0.0	0.0	6.6	3.6	0.0	0.0	0.0	3.6	6.6	5.6	0.0	6.6	4.0	7.0	8.0	10.0	2.6	4.6	11.0	8.0	10.6	7.0	14.3
Minutes spent in group activity	10.6	6.6	4.6	5.0	10.0	7.3	5.6	9.0	9.2	7.3	4.6	13.0	7.6	12.6	11.0	12.0	6.3	11.3	10.3	9.3	6.6	10.6	14.0	14.6

order of the ages of the children at the time their records were taken. Each child's age in months is placed with the letter assigned to him. The age is given as the month nearest the actual age.

On the left margin of the table are found the items for which figures were obtained in the analysis of the records. These are self-explanatory with the possible exception of the following three. <u>Social desirability score</u> is the per cent of each child's contacts that fell within the class of socially desirable traits. (See directions for scoring Blank I). The <u>adult relationships score</u> and the <u>child relationship score</u> are the percentages of each child's contacts that were with adults and with children, respectively.

The figures following these items are based on the averages taken from Records T, T_1, and T_2.

Correlations

Correlations were made to test the reliability and the validity of the record forms. Table II and Table III show these correlations.

The four correlations between the two observers, F and T, are consistent for both records, ranging from $+.731 \pm .064$ to $+.762 \pm .057$. The 12 correlations between records of the same observer on different days ranged from $-.127 \pm .135$ to

Table II. Correlations Based on Contact Record

		Total No. of Contacts			Social Desirability Scores			Average
		T	T_1	T2	T	T_1	T2	T T_1 T2
Total No. of Contacts								
	F	+.731 ±.064						
	T		+.574 ±.092	+.723 ±.065				
	T_1			+.576 ±.092				
Social Desirability Score								
	F				+.742 ±.061			
	T					+.274 ±.127	+.468 ±.117	
	T_1						+.123 ±.135	
Rating Scale								+.374 ±.118

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Table III. Correlations Based on Activity Record

	Group Activity			Work Score		
	T	T_1	T_2	T	T_1	T_2
Group Activity						
F	+.748 ±.060					
T		-.127 ±.135	+.449 ±.104			
T_1			+.079 ±.134			
Work Score						
F				+.762 ±.057		
T					+.530 ±.099	+.118 ±.135
T_1						+.583 ±.090

$+.723 \pm .065.$ The correlation between the social desirability score based on an average of the scores from the observational records T, T_1, and T_2 and a similar score based on the rating scale was $-.374 \pm .118.$

INTERPRETATION OF DATA AND COMPARISON
WITH OTHER STUDIES

The correlations between observers in the present study are comparable to some of those in the study of Goodenough (8). Her correlations ranged from $+.61$ to $+.98.$ They are low, however, when compared with those of Beaver (3) who obtained correlations above $+.97,$ and of Arrington (2) whose correlations were above $+.90.$ It is to be expected that these records, which embodied more analysis of the content of the children's behavior than those of the authors referred to, would show lower coefficients of reliability. This is in keeping with the statement made by Jersild (9) who, in discussing Arrington's technique, says that behavior records will not have much value unless more of the content of the child's behavior is taken into account than in Arrington's records, but that more content is likely to lower reliability.

The low correlations between the records of the same observer on different days would seem to be caused to a great extent by the variation in the child's behavior. This is in-

ferred because it may be assumed that the records of one ob-
server would be more highly consistent with each other than
with the records of another. This variation in the behavior
of the child was mentioned by Arrington (2) as a partial
explanation of her low correlations. She paired 12 odd five
minute records with 12 even records and got correlations
which varied from +.30 to +.69 for the six types of behavior
included in her observations (2, p. 61).

The subjective ratings on the behavior scale were the
only obtainable measures with which to compare the results
of the observational records as a measure of validity. It
is recognized however that they are themselves not wholly
reliable or valid. The low negative correlation of little
reliability between the scores on the rating scale and those
from the observational records suggested two possible short-
comings of the technique. First, perhaps the rating scale
was not made up of items comparable to those used in the ob-
servational records. Second, perhaps the time sampling of
the child's behavior in the observational records was not
wide enough to obtain an estimate of his behavior in general.
These records were limited to the work period while the
teachers' ratings were based on his whole morning in nursery
school.

In view of the first possibility, the scores on three

items which were comparable in wording were isolated from the rating scale and the record forms. The items taken from the rating scale were: <u>social,</u> prefers to play with group, <u>agreeable</u>, good natured, and <u>requires few adult contacts.</u> These were compared with the following scores from the observational records: average number of minutes spent in group activity, average social desirability score, and average number of adult contacts. A comparison was made by taking the average observational scores of those children who received each rank on these items of the rating scale to see if these average scores increased as the ranks increased. If this proved to be true it would suggest that these individual items are more comparable than the rating scale and observational record as a whole, and that the low correlation between the scores might be attributed to injudicious choice of items for the rating scale. The results of these comparisons are found in Table IV. The average observational scores do not increase as the ranks increase and therefore the first suggested explanation of the low correlations between the rating scale and the observational record was rejected. The alternative explanation, that the time sampling of the child's behavior in the observational record was inadequate, was accepted. It was concluded that the observational records did not get a broad enough picture of the child to make it comparable to

the teachers' judgements of the child. This result would seem to be predicted by Goodenough (8, p. 46) who says, "It appears that a truly valid measure of behavior must be based upon observations taken under such a diversity of circumstances as to constitute a representative sampling of the child's daily life."

Table IV. Comparison of Items as Scored
on Rating Scale with Scores
from Observational Records.

Rating	5	4	3	2	1	0
Social, prefers to play with group						
No. of children	5	9	8	2	0	0
Av. No. minutes spent in group activity	10.5	9.6	7.9	8.1		
Agreeable, good natured						
No. of children	8	12	4	0	0	0
Av. social desirability score	57.75	67.33	60.75			
Requires few adult contacts						
No. of children	5	9	4	3	3	0
Av. No. adult contacts	7.8	6.7	6.7	6.7	8.2	

Although the primary use of the data was to test the reliability and the validity of the record forms by means of correlations, it seemed worthwhile to compare certain mea-

sures of behavior in this study with comparable measures in previous studies. The first comparison was made between the adult-initiated contacts in the present study and those in the study by Justin and Reed (10, p. 29). Table V shows these comparisons.

Table V. Mean Number and Purpose of Contacts
Initiated by Adults
(A Comparison with Study by Justin and Reed)

Studies	Mean Contacts per hour (Derived)	Purpose Divisions			
		Initiate	Terminate	Fixate	Eliminate
This Study	14.05	M7.678 %54.6	M .26 % 1.85	M4.01 %28.54	M2.11 %15.02
Justin and Reed	4.57	M1.924 %42.1	M .398 % 8.7	M1.257 %27.5	M .992 %21.7

In evaluating the figures showing the mean number of contacts per hour, the fact must be kept in mind that Justin and Reed have recorded the contacts from the standpoint of the teacher and that their figure represents only the contacts per child by one teacher while in this study the child's contacts with all teachers were recorded. This would account for the larger number of contacts in the present study. It should be recalled also that Justin and Reed's observations extended over the entire morning while the observations in the present study were made only during the work period. The percentages in the Purpose Divisions are seen to be similar.

Another comparison was made with the study of Beaver (3). She found that one-half of the children in her study did not resist adults at all. According to the records of the present study, three-fourths of the children did not resist. Beaver found the mean number of adult contacts equaled 28 per cent of the child's total contacts and varied from 2.5 per cent to 75.4 per cent for individual children. In the present study the mean number of adult contacts is 33 per cent of the total number of contacts and varies from 15 to 55 per cent for the individual children.

SUMMARY AND CONCLUSIONS

The forms devised in this study to measure social adjustment and group activity of nursery school children have provided a satisfactory basis for obtaining objective behavior records.

The reliability of these records was investigated by correlating scores from two 15 minute records made at the same time by two observers and by correlating scores from pairs of 15 minute records made by the same observer on different days.

The correlations obtained indicate that the reliability of the records taken of the 24 children included in the study was low. The correlations between observers for the four

observational scores that were compared varied from +.731 to
+.762. The conclusion from these correlations was that a
record form involving a large amount of content is one of
low reliability in the usual statistical sense.

The 12 correlations between records of the same observer
varied from -.127 to +.723 for the comparisons made between
four observational scores obtained in three observational
periods. It was concluded from this that the 15 minute peri-
od used in this study was not long enough to give a represen-
tative picture of the child's behavior as it varies from day
to day.

The correlation between the scores of the rating scale
and those from the observational record was -.374. From
this it was concluded that the number of daily samplings of
the child's activity was inadequate for a valid estimate of
his general behavior, or that records taken during a given
period of the day were not diversified enough to give a com-
plete picture of the child's behavior.

Although these correlations indicated a low reliability
and validity of the records used in this study, nevertheless,
certain measures obtained by the records revealed facts con-
cerning the social behavior of the children which checked
with comparable data obtained in other studies.

SUGGESTIONS FOR FURTHER STUDY

The present study suggests that it might prove profit-able to use. these or similar record forms at different peri-ods of the child's day and on a greater number of days in order to obtain a higher validity. Although the 15 minute period proved too short for reliability it is believed that a longer period on the same day would not have yielded suffi-cient reliability to satisfy the usual statistical require-ments. Therefore it would seem desirable to correlate the results from two 45 minute periods, each made up of three 15 minute records taken on different days. The resulting reliability might then be compared with those obtained in the present study.

Another possibility would be to keep the same general form of the records but to make them less specific. Although it is recognized that more of the content of behavior than has been included in previous studies is desirable, it is possible that the present study has attempted to define too closely the types of behavior observed. For example, if contacts and responses had been classified merely as friend-ly and unfriendly, the reliability of the observers might have been more satisfactory and yet the essential purpose of the record to measure social adjustment would have been real-ized.

ACKNOWLEDGMENT

LITERATURE CITED

1. Anderson, John E.
     Methods of child psychology. In Murchison, Carl.
     ed. A handbook of child psychology. Worcester,
     Mass. Clark University Press, p. 1-25. 1931.

2. Arrington, Ruth E.
     Interrelations in the behavior of young children.
     New York. Bureau of Publications, Teachers College,
     Columbia University, 156 p. 1932.

3. Beaver, A. P.
     The initiation of social contacts by preschool chil-
     dren. New York. Bureau of Publications, Teachers
     College, Columbia University, 65 p. 1932.

4. Blatz, W. E., and Bott, Helen.
     The management of young children. New York. William
     Morrow, 354 p. 1930.

5. Bridges, K. M. B.
     A preschool character rating chart. Psychological
     Clinic. 17-18:61-72. 1928-1930.

6. Brooks, Fowler D.
     The psychology of adolescence. Boston. Houghton
     Mifflin, 652 p. 1929.

7. Ezekiel, Lucille F.
     Time savers in record keeping. Childhood Education.
     6:401-403. May 1930.

8. Goodenough, Florence L.
     Interrelationships in the behavior of young children.
     Child Development. 1:29-47. March 1930.

9. Jersild, A. T.
     The constancy of certain patterns in young children.
     Amer. Jour. of Psychology. 45:125-129. 1933.

10. Justin, Florence, and Reed, Mary F.
     A study of the number and purpose of the child train-
     ing contacts of the nursery school teacher in morn-
     ing routine. Omicron Nu. p. 17-62. Spring 1932.

11. Loomis, Alice M.
     A preliminary study of the physical contacts of nursery school children. In Thomas, D. S.,ed. Some new techniques for studying social behavior. New York. Bureau of Publications, Teachers College, Columbia University, p. 55-75. 1929.

12. Moore, Elizabeth Skelding.
     The development of mental health in a group of young children. University of Iowa Studies in Child Welfare. 4(6). 128 p. 1931.

13. Parten, Mildred.
     An analysis of social participation, leadership, and other factors in preschool play groups. In Goodenough, Florence L., and Anderson, John E. Experimental Child Study. New York. Century Co. p.248-250. 1931.

14. Van Alstyne, Dorothy.
     Play behavior and choice of play materials of preschool children. Chicago. The University of Chicago Press, 104 p. 1932.

15. Walker, Helen M.
     The sampling problem in educational research. Teachers College Record. 30:760-774. Oct. 1928-May 1929.

16. Washburn, Ruth.
     A scheme for grading the reactions of children in a new social situation. Jour. of Genetic Psychology. 40 (1):84-117. 1932.

17. Young, Kimball.
     Topical summaries of current literature. Personality Studies. Amer. Jour. of Sociology. 32:953-971. 1927.

APPENDIX

BLANK # 1

Name of Child _____
Date _____ Time _____ Recorded by _____

CHILD CONTACTS
(Verbal or gesture)

Purpose	No.	Total	Types of Reaction				
Init. by others:			Frndly.	Resist.	Indiff.	Flight	Cries
Frndly.							
Antagn.							
Tak.sds.							
Teasing							
Total							

Self-initiated:							
Frndly.							
Antagn.							
Tak.sds.							
Teasing							
Total							

(Physical)

Init. by others:	Frndly.	Resist.	Indiff.	Flight	Cries
Frndly.					
Accdntl.					
Antagn.					
Imprsnl.					
Crssing.					
Teasing					
Total					

Self-initiated:					
Frndly.					
Accdntl.					
Antagn.					
Imprsnl.					
Crssing.					
Teasing					
Total					

ADULT CONTACTS

Initiated by adults:	Cooprt.	Resist.	Ignors.	Flight	Cries
Elmnte.					
Fixate					
Terminate					
Initiate					
Total					

Self-initiated: (Verbal)

Frndly.
Showing off
Getting help or object
Getting information
Defying
Total

Self-initiated: (Physical)

Frndly.
Antagnstc.
Seeking protection
Impersonal
Caressing
Teasing
Total

Is this day typical? _____ If not, describe why.

BLANK # 2

Names of Children _____

Date _____ Time _____ Recorded by _____

ACTIVITY

.	Unoc. beh.	Onl. beh.	Constr. Beh.			Non-constr. Beh.			Showing Off			Org. Play	Rout- ine	M.
			Sol.	Par.	Aut.	Sol.	Par.	Aut.	Sol.	Par.	Aut.			
1														1
2														2
3														3
4														4
5														5
6														6
7														7
8														8
9														9
10														10
11														11
12														12
13														13
14														14
15														15
16														16
17														17
18														18
19														19
														20
														21
														22
														23
24														24
25														

DIRECTIONS FOR MARKING BLANK I

Omit any accidental adult contacts.
When physical and verbal contacts occur simultaneously
    record both.

DIRECTIONS FOR MARKING BLANK II

Select two or three children for observing simultaneous-
    ly. At the beginning of each minute, mark the
    initials of each child in the cell appropriate to
    the activity in which the child is engaged.

DIRECTIONS FOR SCORING BLANK I

Give one point for each contact and response classified
    as socially desirable. These are as follows:

    a. Contacts.
        1. Friendly
        2. Caressing
        3. Getting information

    b. Responses.
        1. Friendly
        2. Cooperative

DIRECTIONS FOR SCORING BLANK II

Give one point for each activity checked under Construc-
tive Behavior or Organized Play.

RATING SCALE

Child _____   Observer _____

Date _____

1. <u>Agreeable</u>, good natur-   5 4 3 2 1 0   Cross, quarrelsome,
   ed.   ill-humored.

2. <u>Busy</u>, keeps working.   5 4 3 2 1 0   Idle, inactive.

3. <u>Does not tease</u>.   5 4 3 2 1 0   Teases, enjoys calling
                                                   another names, etc.

4. <u>Cooperative</u> with chil-   5 4 3 2 1 0   Is not cooperative.
   dren.

5. <u>Does not bid for at-   5 4 3 2 1 0   Bids for attention
   tention</u>, unconcern-   through needless
   ed about impression   questions, showing
   he makes.   off, etc.

6. <u>Self-reliant</u>, rarely   5 4 3 2 1 0   Dependent, always ask-
   asks for help.   ing for help.

7. <u>Friendly</u>, shows an   5 4 3 2 1 0   Reserved, lacks inter-
   open cordiality to   est in others or is
   everyone.   suspicious or antag-
                                                   onistic.

8. <u>Social</u>, prefers to   5 4 3 2 1 0   Plays or works alone,
   play with group.   tends to avoid group
                                                   activities.

9. <u>Leads</u> others.   5 4 3 2 1 0   Not a leader.

10. <u>Rarely a spectator</u>;   5 4 3 2 1 0   An onlooker; usually
    either joins the   watches without par-
    group or plays alone.   ticipating.

11. <u>Affectionate</u>.   5 4 3 2 1 0   Is not affectionate.

12. <u>Purposeful</u>.   5 4 3 2 1 0   Aimless.

13. <u>Questioning</u>.   5 4 3 2 1 0   Incurious.

14. <u>Compliant</u> to adult   5 4 3 2 1 0   Persistently negativis-
    suggestion.   tic.

15. <u>Respectful of others rights.</u>   5 4 3 2 1 0 Shows little respect for others; acts as he likes.

16. <u>Seldom cries.</u>   5 4 3 2 1 0 Cries often.

17. <u>Requires few adult contacts.</u>   5 4 3 2 1 0 Requires many adult contacts.

DIRECTIONS FOR BEHAVIOR RATINGS

For each of the 20 traits which are underlined and list-ed on the left hand side of the paper, draw a circle around:

5 if the child displays the trait to a very high degree;

4 if the child definitely displays the trait although not to an extreme;

3 if the child displays the trait to an average degree;

2 if the child definitely tends toward the opposite of the trait underlined;

1 if the child displays the opposite of the trait to a very high degree;

0 if you have insufficient data to make a rating.

Example: A child who is extremely and rather uniformly agree-able and good-natured would be rated 5; a child who is characteristically cross and ill-humored would be rated 1.

Please rate all the children in your room on each trait before beginning on the next trait.

APPENDIX

Definition of Terms

Blank I. The word contact has been used to mean any social approach of one child to another and may indicate physical or verbal approach or one by gesture. It includes only those cases where the child shows the intention of addressing a particular person rather than a group of persons. The limits of a contact are as follows: a contact begins when an individual first approaches or addresses another and ends (a) when either transfers his attention elsewhere, (b) when the type of contact (physical or verbal) changes, (c) when the classification of the contact, (friendly, antagonistic, etc.) changes, (d) when the type of response of the approached child changes. Physical contact includes the situations where the child is helping to carry an object, is giving an object to another, or is taking an object from another.

On the left hand margin of the blank are listed the types of contacts made by the child, or in other words, the purpose of the contact.

Friendly includes all contacts of an agreeable nature. Showing an object to an adult without playing for attention is friendly.

Antagonistic has been used to indicate contacts of a belligerent nature. It includes any unsocial approach, verbal or by gesture; it may mean the taking of toys or material from another without permission.

Taking sides has been used to designate any banding together against another child.

Teasing includes any calling names or a repetition of phrase or word for the sole purpose of provoking another.

Impersonal has been used to designate that behavior which is best described as treating an individual as an object.

Caressing means patting, kissing, hugging, or any pronounced expression of affection.

The contacts initiated by adults have been defined as Justin and Reed (10, p. 24-25) defines them.

Eliminate: "Elimination of Undesirable Activity. The teacher attempts to eliminate behavior she considers undesirable."

Fixate: "Fixation of Desirable Activity. When the teacher smiles, nods approval, or says 'fine', 'good', it is her purpose to fixate the desirable activity." The term has been used in the present study to refer to specific activities rather than to types of activity.

Terminate: "Termination of Desirable Activity. It may

be necessary to curtail activity, itself desirable, in order to secure a variety of experience for the child or to have the child attend to some part of the nursery school routine... Contacts for such purposes are usually in the form of requests or statements as 'Now it is time to', or 'Now you are ready to'."

Initiate: "Initiation of Desirable Activity. Children unable to decide upon some activity need suggestion as to what to do. Hence by demonstration, explanation, suggestion, request, and assistance, the teacher initiates desirable activity."

In adult contacts initiated by the child:

Showing off means any contact for the purpose of gaining attention for himself.

Getting help or object may mean asking for assistance in completing a task; asking for material; or getting help in settling any difficulty the child may be in.

Getting information indicates any questions asked for the purpose of adding to the child's knowledge.

Defying refers to any approach the child makes to the adult in a defiant manner.

Seeking protection may be a clinging to an adult for protection from another child.

Across the top of the form are listed the Types of Re-

sponse the contacts elicit.

Friendly refers to any response to a contact made in a friendly manner.

Resistant means the active rejection of an approach.

Cooperative indicates compliance with an adult-initiated contact.

Indifferent describes the situation in which the child does not actively respond. It includes responses in which a child momentarily gives attention to the one making the contact, but does not smile or answer in any way, and turns almost at once to some other interest.

Flight indicates running away from the situation, or any degree of withdrawal.

Cries includes those responses in which the primary response is a cry.

Ignores refers to the response in which the child hears the adult suggestion but pays no attention to it.

Blank II. The activity record has been based on the classification of activity given by Parten (13). The headings at the top designate both the type of activity and whether the child is alone or in a group.

Unoccupied indicates those situations in which the child is doing nothing and is not an onlooker of another's activity.

Onlooker behavior is the observation by the child of an-

other's activity.

Constructive behavior includes only that which falls in the category of constructive and dramatic play as given by Blatz and Bott (4, p. 115-121).

Non-contructive includes getting out materials except as this is a continuation of constructive work already begun. It also includes behavior which, although it is purposive, does not fall within the definition of constructive activity. Manipulative behavior is also included as non-constructive. Conversation is classified as non-constructive unless it is clearly related to a piece of constructive activity.

Showing off describes activity in which the child's behavior is for the sole purpose of attracting attention.

Solitary activity includes all situations in which the child is away from the group of children, but he may be with an adult.

Parallel activity describes those situations in which the child is playing in close proximity to other children but not playing with the group. It may happen because the toy the child wishes to play with is near the other children, (Parten, 11). Solitary behavior becomes parallel when another child begins parallel play near this one; e.g., in working with clay, sand, or paint.

Autonomous activity is that in which the child is playing in a group in which all members have a common interest.

Each child is playing individually but with the group and is doing the same thing or same type of thing the others are doing.

Organized play recognizes a leader in the group activity and a more or less close organization of purpose.

In the column headed Routine are recorded those minutes spent by the child in routine activity after observation of him has been started. These minutes are excluded from the record and observation is continued for an equivalent number of minutes after the original fifteen.