

SOCIAL PLAY AMONG PRESCHOOL CHILDREN

By MILDRED B. PARTEN¹

THE material presented in this paper is a part of an extensive observational study of social behavior carried out on nursery school children in the Institute of Child Welfare, the University of Minnesota.² Two earlier papers have dealt quantitatively with the extent of social participation and leadership in preschool groups. This article is concerned with size of preschool groups, factors influencing the child's choice of playmates, and the social value of various activities, games, and toys.

Data on all these factors were gathered by the time sampling method of observation. The 34 children were observed daily for one minute each at the morning free play hour, until 60 or more behavior samples were obtained. In addition to recording the degree of participation under six categories: unoccupied, solitary, onlooker, parallel, associative, and organized supplementary play; and degree of leadership under five headings: following, independent pursuit, following some and directing others, sharing leadership with another, and directing alone. The writer made note of the number of children in each group, their names, and the play activity in which they were engaged.

PLAY GROUPS

Size.—Play groups varied in size from two to fifteen children, but small groups were by far the most frequent. Groups composed of more than five children were rarely observed. The data included in Table I represent the number of children playing in groups of each size on the basis of percentage frequencies. All the children spent 15 per cent or more of their time in groups of two. The majority of them spent less than 25 per cent of their time in groups of three, less than 20 per cent of their time in groups of four, less than 10 per cent in groups of five, and less than 5 per cent in groups of six or larger.

¹ From the Institute of Child Welfare, the University of Minnesota. Rewritten from a thesis manuscript for periodical publication by Mary Shirley.

² Parten, M. B. Social Participation Among Preschool Children, *Jour. of Abn. & Soc. Psych.*, 1932, Vol. XXVII, pp. 243-269.

Parten, M. B. Leadership Among Preschool Children. *Jour. of Abn. & Soc. Psych.*, 1933, Vol. XXVII, pp. 430-440.

TABLE I.
FREQUENCY OF OCCURRENCE AND PROPORTION OF TIME SPENT IN PLAY GROUPS
OF VARIOUS SIZES

Per Cent of Observations	Size of Groups						
	2	3	4	5	6	7	8 and over
0-4	0	0	0	9	24	28	34
5-9	0	0	6	13	8	6	0
10-14	0	4	8	8	2	0	0
15-19	1	9	11	3	0	0	0
20-24	9	13	9	1	0	0	0
25-29	12	6	0	0	0	0	0
30-34	8	1	0	0	0	0	0
35-39	1	1	0	0	0	0	0
40-44	3	0	0	0	0	0	0
Total number of children	34	34	34	34	34	34	34

The most popular size for play groups was two. This was true not only for the nursery school as a whole, but also for every age group except the oldest. (See Figure 1.) No very striking age differences existed in the frequencies of the children's play in groups of three and four, but the tendency to play in groups of five clearly increased with age.

In the course of the study the observer noted six different techniques used by the children to gain entrance into a play group. The most direct technique consisted in the outsider's asking a member of the group, "Can I play too?" Somewhat more round-about requests to join the group were addressed to the teacher, "I want a place to paint." Sometimes the outsider gained entrance into the group more subtly by commenting on the activities of some of the members, "My, but that's high. What are you making?" Again the outsider merely presumed that he was accepted and joined the play, perhaps with a comment, "Play I am aunty," or a question, "Shall I be the little brother?" Occasionally the child formed his own group by displaying toys he had brought from home or by assigning rôles to the other children or by inviting others to play, "This chair is for Harriet." The least aggressive method of gaining entrance was by invitation from the group, "Paul, come play with us."

Sex composition of groups.—When the 781 two-child groups were analyzed on the basis of sex, 530 or 68 per cent were found to be composed of one sex only. This finding agrees well with that of Chevaleva-Janovskaja,(4) who found that 67.37 per cent of the groups studied were unisexual. Challman (3) likewise reports a marked cleavage in friendship on the basis of sex; out of 718 groupings he found 67 per cent to be of one sex only. The tendency to form unisexual groups increased with age from 61.5 per

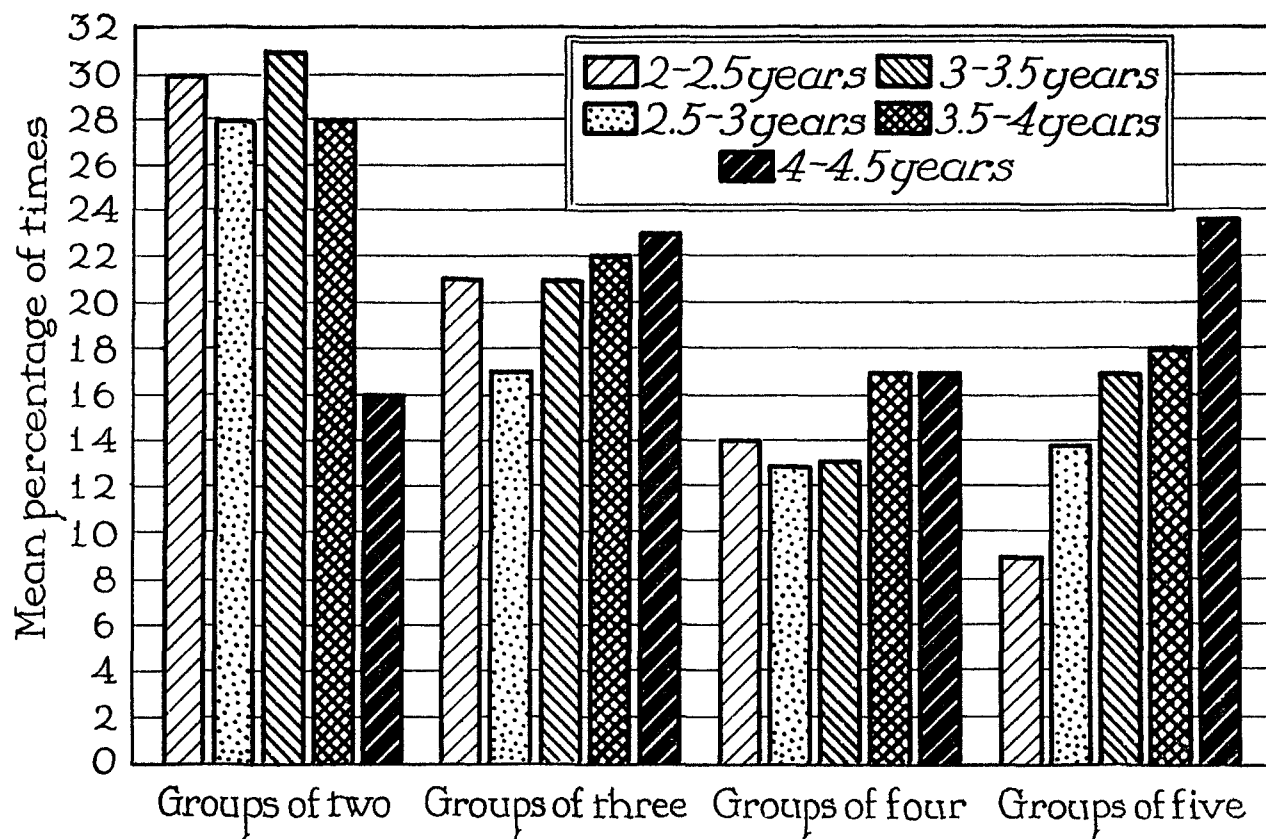


Figure 1. Size of Play Groups.

Showing mean percentage of times children of different ages played in groups of 2, 3, 4, 5.
(Six children in each age group and 60 observations per child.)

cent at the two-year level to 79 per cent at the age of four-and-a-half; Even at the earliest ages boys played more often with boys and girls with girls.

Sex of favorite playmates.—The number of times each child was observed playing with every other child, regardless of the size of the play group, was computed. Thus the five children with whom each child played most frequently were selected. Among the girls 81 per cent of the five favorite playmates were other girls; and among the boys 62 per cent were other boys. The single best playmate for each child was selected from the group of five. Out of the 34 pairs of children thus obtained, 27 were unisexual. Every girl's favorite playmate was another girl; and 12 of the 19 boys had favorites of their own sex. All of the 7 boys who preferred the companionship of a girl were under the median age of the nursery school group; and two of them had as their best playmate an older sister who had been in the school longer and who more or less took charge of the newcomer.

Similarity of favorite playmates in I.Q. and age.—The I.Q. of favorite playmates showed little similarity. The differences between friends ranged from 2 to 40 I.Q. points with a mean difference of 19.1 points for the girl pairs, and of 12.9 points for boy pairs. These results are in agreement with Wellman's (6) discovery that boy playmates are more similar in I.Q. than girl playmates. They also are in harmony with Challman's finding that similarity in mental age has little influence on the strength of preschool children's friendships.

In age the playmate pairs differed from 0 to 18 months; but the median age difference was less than 3 months. The average difference for girls was 4.1 months, and for boys 3.5 months. Both Wellman and Challman found similar tendencies for boy chums to be more closely alike in age than girl chums.

The influence of older or younger siblings in the homes showed itself in the children's choice of playmates. Children who had younger brothers or sisters at home averaged 1.1 school playmates who were six months or more their junior, whereas children having no younger siblings averaged .65 younger playmates at school. Similarly children who had older siblings counted among their best friends 1.9 playmates who were six months or more their senior, while children having no older siblings played with .9 older playmates.

Sibling pairs in the nursery school were necessarily omitted from the above calculations. That siblings did show a marked preference for each other is shown in Figure 2. In the chart the

top pair of bars compare the older child's companionship with his sib to his friendship with all other children; the second pair compare the younger child's friendship with his sib to his friendship with all other children. Pairs A3-B2, M3-C1, and L2-A1 were sister-brother pairs, with the sister the elder; K3-F2 were boys; and I4-E3 were girls. Two points can be made from these comparisons. First, in the girl-boy pairs the younger brother spends a larger proportion of his playtime with the sister than the sister devotes to him; he apparently depends on her for "mothering". Second, striking differences exist in the unity of the various family pairs. Brothers K3 and F2 were almost inseparable companions; sisters I4 and E3 played almost as frequently with other children as they did with each other.

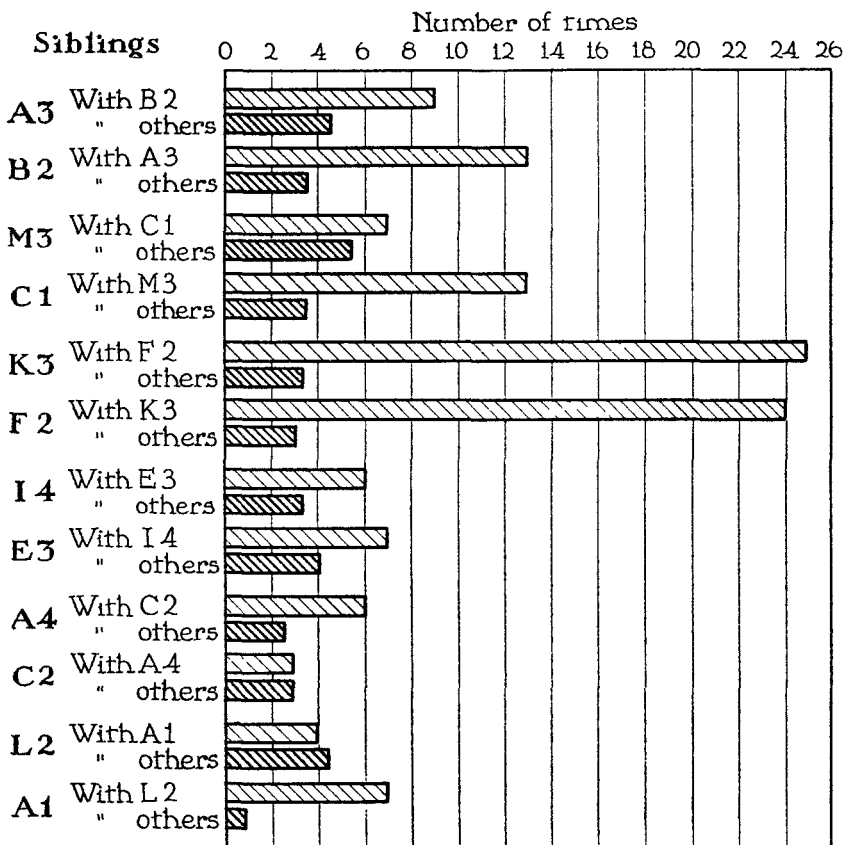


Figure 2. Companionship among Siblings.

Showing number of times siblings were observed playing with one another (as compared with the average number of times they played with the other children.)

CHOICE OF OCCUPATIONS

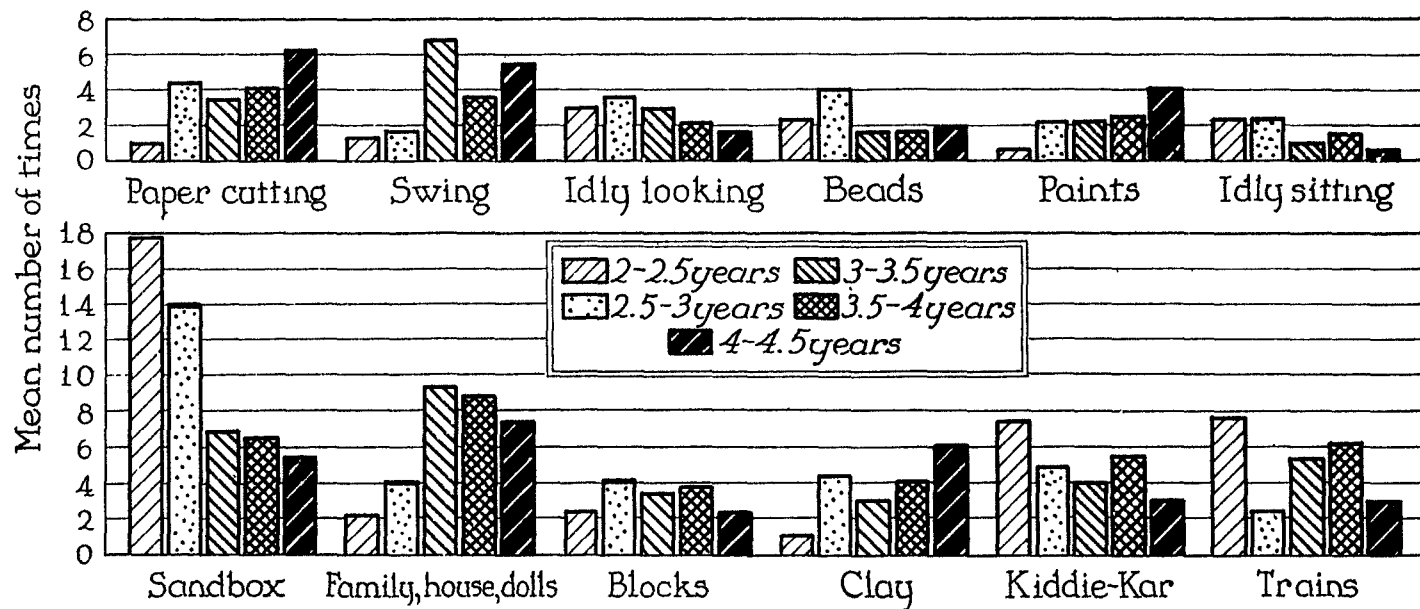
Whether a child chose a toy or occupation because it brought him into contact with other children or whether he selected the toy for its intrinsic interest regardless of the social situation to which it led, the observer could not ascertain. Nevertheless, 60 records for each of the 34 children were analyzed according to the activities in which the children were engaged.

Favorite activities and toys.—In all 110 different activities were noted, 33 of which were observed only once, 79 less than 10 times, 24 from 20 to 100 times, and 12 more than 100 times. The frequency of occurrence of the eleven most popular activities is given below.

Occupation	Number of times observed
Playing at sandbox	330
Playing family, house, and dolls	178
Pulling or hitching sectional train	151
Riding kiddie-kar	146
Cutting paper	122
Molding clay	119
Swinging	102
Building with blocks	99
Looking at object or picture	80
Stringing beads	65
Painting	62
Sitting unoccupied	43

The popularity of stringing colored beads and building with blocks among these children is comparable to the preference for fitting cylinders into holes, building with bricks, and arranging wooden color pairs in rows, which Bridges (2) reports for Montreal children. Among the fourteen favorite toys and occupations listed by Bott (1) were big blocks, sectional trains, kiddie-kars, picture books, doll carriages and dolls, and beads. These were also favorites with the Minnesota children. Judging from Bott's statement that "little children play with beans for long periods, emptying them from one vessel to another", the activity is comparable to the sand play in which these children delighted. Skalet (5) in a study of play equipment in the home, found that dolls, garden tools, picture books, sand, scooter, and tricycles were played with for longer periods than other toys. All of these that were available to the nursery school children ranked among their favorites.

Age differences in toy preference.—Figure 3 shows the popularity of the twelve most preferred toys by age groups. Sand play was the high favorite of the youngest age group and declined in popularity with age, although it remained among the three most



preferred activities of the older children. Riding kiddy-kars showed the same trend, but to a less pronounced degree. Idly sitting and idly looking were gradually given up for more active pursuits at the later ages. Family, house, and dolls was the most popular at the three-year age level. The simple motor activity of swinging was also most popular at this age. The more complicated constructive play that utilized clay, paper, or paints became more popular as the children grew older. Play with trains and with beads showed no clear-cut age trends.

Social value of toys.—In order to ascertain what types of social situations accompanied play with each of the toys 50 instances of play with each toy were analyzed for their social participation value. To insure an unbiased sample of 50 instances the last one or two instances of play with each toy were selected from each child's record. Table 2 shows the frequency of each type of social participation for each toy. House and dolls was the most highly co-operative type of play. Play with sand, paper, clay, swings, beads, and paints was usually participated in as a parallel pursuit. Trains were about equally divided between solitary and associative play activities; and block play occurred with almost equal frequency in every type of social intercourse.

TABLE 2.
TYPE OF SOCIAL PARTICIPATION

	Solitary	Onlooker	Parallel	Associa- tive	Coopera- tive	Total
Sandbox	7	2	32	6	3	50
House and dolls	3	7	1	2	37	50
Trains	18	4	7	17	4	50
Kiddie-kar	1	3	17	16	13	50
Cutting paper	5	4	27	14	0	50
Clay	0	3	40	7	0	50
Swings	9	6	23	12	0	50
Blocks	10	4	12	9	15	50
Beads	8	3	37	2	0	50
Paints	0	8	29	8	0	50

Since the manner of playing with the toys differed from one age group to another it will perhaps be well to describe some of the age differences in the social play with each toy.

Sand.—The younger children spent most of their time in pouring the sand from one container to another. Sometimes they packed it solidly into dishes and emptied it out carefully to keep the mold intact; to this accomplishment the child perhaps called an adult's attention with a "See?" Social conflict occasionally arose when one child smashed another's mold or seized his vessel. But as a rule sand play afforded very little social intercourse for

the younger child. He was content to stand for long periods, speaking to no one, and completely absorbed in his task.

The older children's sand play was of two types. The first type was very similar to that of the younger children, except that the older children lacked interest in it and were merely passing the time until some more interesting game developed. Their attention was usually drawn to something else in the room and the sandbox was abandoned. In the other type the sand was used for purposes of constructing roads and buildings and for moving truckloads or making choice dishes. This type of play required mental attentiveness and social assistance. Unless the children worked on a co-operative project they divided the sand, with attendant disputes over boundary lines. Competition frequently developed, when the children vied in manufacturing attractive products.

House.—Dramatization of home life, which was the second most popular activity, comprised three types of play. In the first type the younger children were passive participants, allowing themselves to be led around by the older ones who played "mother and daddy" rôles. The "youngsters" apparently did not comprehend their rôles nor modify their behavior to "play up" to their parts. Since it was usually the younger brothers of older nursery school children who were used in this way, their acceptance seemed to be a carry-over from the "tagging along after older brother or sister" that occurred at home.

The second type of play, imitating home situations, consisted in dressing and undressing dolls, rocking them to sleep, and putting them to bed. The little mother seldom directed any conversation to the doll or to other children who were near by. As a rule this type of play was solitary and it occupied the two-to-three-year-old children.

The third type, commonly called "playing house", involved complex social adjustments and was rarely observed in children under three. Events occurring in the home were re-enacted: setting the table and giving a party; telephoning daddy to ask when he was coming home; receiving the doctor for a sick baby; mother's asking daddy for money to shop, and daddy's cautioning her not to spend it all; taking baby for a walk or buggy ride; packing suitcases for a trip; ordering groceries by telephone; spanking baby and putting him to bed; sending daddy off to work. Sex differences in this type of play were obtained by pairing each girl with a boy of approximately the same age. Among the sixteen pairs so obtained 163 instances of playing house were observed; 59 per

cent of these instances were recorded for girls. When the activity of playing with dolls, which occurred three times as frequently with girls as with boys, was eliminated, the girl's percentage of playing house was reduced to 53. In dramatization of home and family that did not involve dolls the sex difference was slight. "Baby" rôles were usually played by younger children and male rôles were enacted by boys.

Trains.—Hitching sectional trains together and drawing them along the floor, which was most popular at the youngest age, seldom involved social contact. Young children would spend the entire play period crawling on hands and knees pulling these trains; occasionally they stopped to rest and glance around the room, but they rarely stood up or moved away from their trains. With the older children train play was an associative or co-operative activity, often involving the building of tracks or stations with blocks. In contrast to the train play of two-year-olds that of the older children was of short duration. Sex preference for the train was more marked than for dolls; of the 120 instances of train play 89 per cent was noted for boys.

Kiddie-kars.—For the younger children the kiddie-kar was not conducive to social play. They mounted and rode slowly in and out among groups of children, stopping to watch the play of others and moving on when a new group seemed more attractive. The older children usually pretended the kiddie-kars were automobiles and this dramatization resulted in co-operative games of auto parades; auto races; driving to oil stations or garages; having breakdowns and being towed; hauling lumber for building purposes; transporting passengers; and obeying traffic policemen. The last activity often brought into the game children who were mere spectators sitting on kiddie-kars; but the "cop" gave directions to all regardless of their desire to enter the group play. Only 24 per cent of the play with kiddie-kars was observed for girls, and in practically all the instances the girls were under three years. The boys' preference for the toy was equally great at all ages.

Swings.—Swinging occurred infrequently among the younger children because the swings were difficult to mount. Older children occasionally pushed one another but they were not allowed to "pump" together. Girls occupied the swings 86 per cent of the time they were in use.

Constructive materials: paper, clay, beads, paint, and blocks.—All children except the youngest group cut paper and molded clay;

the younger children used beads in a simple constructive way. Each child obtained these materials from the shelf, seated himself at a table designated for the activity, and occupied himself with his own constructive efforts. Occasionally the older children conversed about the designs they cut or the color patterns they were working out with their beads, but for the most part the social situation was the same for all ages. The girls used paper 63 per cent of the time and beads 78 per cent of the time those toys were used.

Play with water colors was always supervised by a teacher and was offered about once a week. Painting drew a greater number of onlookers than any other activity. The children occasionally conversed about their paintings and were eager to display the finished product. Girls were engaged in painting 59 per cent of the time it was observed.

Blocks afforded all degrees of social participation. They were played with by boys 71 per cent of the time they were used.

Idly looking and idly sitting.—Examining objects, such as the goldfish, a plant, a new toy, a new dress, or something a child had made involved parallel social participation because the sight of a child intently gazing at an object aroused the curiosity of other children, who then grouped themselves about the object.

Idly sitting on chairs and glancing around the room, or perching upon a high covered radiator overlooking the railroad tracks was most frequently observed among children from two to three years old.

Social participation score for favorite toys.—Social participation scores were worked out for the ten favorite games and toys by weighting each incidence of play as follows: unoccupied behavior, —3; solitary play, —2; onlooker behavior, —1; parallel play, 1; associative play, 2; co-operative play, 3. The algebraic sum of these scores for each toy were as follows:

House and dolls	103
Kiddie-kar	83
Clay	51
Blocks	51
Scissors and paper	41
Sand	37
Paints	37
Swings	23
Beads	22
Trains	17

Great differences in the social value of each toy exist. Play-house equipment elicits the most complex social adjustments, whereas trains elicit the least.

CONCLUSIONS

Observations of the spontaneous play of nursery school children by the one-minute sampling method indicated that:

1. Preschool children most frequently play in groups of two.
2. The size of play groups increases with age.
3. Two-thirds of the two-child groups are unisexual.
4. The majority of the child's favorite playmates are of the same sex.
5. I.Q. has little influence on the preschool child's friendships.
6. Age and home environment influence friendships.
7. Siblings show a marked preference for each other's society.
8. Playing house is the most social type of play engaged in by nursery school children.
9. Sand play and constructive work with clay, paper, beads, and paints are characteristically parallel play activities.
10. Younger and older children differ in the manner in which they play with toys and hence in the social value the toy has for them.

REFERENCES

1. Bott, Helen, Observation of Play Activities in a Nursery School. *Genet. Psychol. Monog.*, 1928, 4, 44-88.
2. Bridges, K. M. B., Occupational Interests of Three-Year-Old Children. *Ped. Sem. and J. Genet. Psychol.*, 1927, 34, 415-423.
3. Challman, R. C., Factors Influencing Friendships Among Preschool Children. *Child Dev.*, 1932, 3, 146-158.
4. Chevaleva-Janovskaja, E, Les groupements spontanés d'enfants à l'âge préscolaires. *Arch. de Psychol.*, 1927, 20, 219-233.
5. Skalet, Magda, Play Equipment of the Preschool Child. M. A. Thesis, 1927. On file in the University of Minnesota Library.
6. Wellman, Beth, The School Child's Choice of Companions. *J. Educ. Res.*, 24, 126-132.