

DOCUMENT RESUME

ED 223 343.

PS 013 187

AUTHOR ~~Borman, Kathryn M.; And Others~~
 TITLE ~~Negotiating Playground Games.~~
 SPONS AGENCY ~~National Inst. of Education (ED), Washington, DC.~~
 PUB DATE ~~Sep 82~~
 GRANT ~~NIE-G-79-0123~~
 NOTE ~~38p.; Paper presented at the Annual Meeting of the American Sociological Association (San Francisco, CA, September 7, 1982).~~
 PUB TYPE ~~Speeches/Conference Papers (150) -- Reports - Research/Technical (143)~~

EDRS PRICE MF01/PC02 Plus Postage.
 DESCRIPTORS *Behavior Patterns; *Childrens Games; Elementary Education; *Elementary School Students; *Group Behavior; *Interaction; Play; Sociometric Techniques; *Verbal Communication
 IDENTIFIERS Activity Structures; Coding; Naturalistic Research; Time Utilization

ABSTRACT.

The major purpose of this study was to define the particular ways children's informal interactions in groups are important in their negotiations of playground games within school settings. Data, gathered over a 3-month period on the playgrounds of three elementary schools, consisted of 23 audiotaped records of children's spontaneously organized playground activity plus observer's field notes. Composed of third- and sixth-grade students, the sample included 13 girls and 10 boys previously categorized as exhibiting different levels of involvement (expert, sampler, shunner) in playground games. Two sets of analyses were conducted. Initial analyses centered on how children structured their activities on the playground. Here the specific focus was both upon the structure of the activity itself (operationalized as the pattern of turn-taking) and the allocation of players' activity during the course of the game. The temporal nature of activity structures was also determined. The second set of analyses centered upon the process of game play itself. Here interest was principally upon utterances children made in monitoring ongoing action in the game. Of particular interest were distractions threatening ongoing game performance and game maintenance strategies contributing to the continuity of action in the game. Results are reported for 19 children. Decision rules and categories developed in the investigation are appended.. (RH)

 * Reproductions supplied by EDRS are the best that can be made *
 * from the original document. *

ED223343

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC)

- X This document has been reproduced as received from the person or organization originating it.
Minor changes have been made to improve reproduction quality.
- Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

Negotiating Playground Games

Kathryn M. Borman, David Barrett and
Padmini Sheoran

University of Cincinnati

Paper presented at the American
Sociological Association
Annual Meeting

San Francisco, September 7, 1982

"PERMISSION TO REPRODUCE THIS
MATERIAL HAS BEEN GRANTED BY

Kathryn M.
Borman

TO THE EDUCATIONAL RESOURCES
INFORMATION CENTER (ERIC)."

*This material is based upon work supported by the National Institute of Education under the grant NIE-G-79-0123 made to the first author. Any opinions, findings, etc., expressed in this paper are those of the authors and do not necessarily reflect the view of the Institute or the Department of Education.

PS 013187

DOCUMENT RESUME

ED 223 343

PS 013 187

AUTHOR Borman, Kathryn M.; And Others
 TITLE Negotiating Playground Games.
 SPONS AGENCY National Inst. of Education (ED), Washington, DC.
 PUB DATE Sep 82
 GRANT NIE-G-79-0123
 NOTE 38p.; Paper presented at the Annual Meeting of the American Sociological Association (San Francisco, CA, September 7, 1982).
 PUB TYPE Speeches/Conference Papers (150) -- Reports - Research/Technical (143)
 EDRS PRICE MF01/PC02 Plus Postage.
 DESCRIPTORS *Behavior Patterns; *Childrens Games; Elementary Education; *Elementary School Students; *Group Behavior; *Interaction; Play; Sociometric Techniques; *Verbal Communication
 IDENTIFIERS Activity Structures; Coding; Naturalistic Research; Time Utilization

ABSTRACT

The major purpose of this study was to define the particular ways children's informal interactions in groups are important in their negotiations of playground games within school settings. Data, gathered over a 3-month period on the playgrounds of three elementary schools, consisted of 23 audiotaped records of children's spontaneously organized playground activity plus observer's field notes. Composed of third- and sixth-grade students, the sample included 13 girls and 10 boys previously categorized as exhibiting different levels of involvement (expert, sampler, shunner) in playground games. Two sets of analyses were conducted. Initial analyses centered on how children structured their activities on the playground. Here the specific focus was both upon the structure of the activity itself (operationalized as the pattern of turn-taking) and the allocation of players' activity during the course of the game. The temporal nature of activity structures was also determined. The second set of analyses centered upon the process of game play itself. Here interest was principally upon utterances children made in monitoring ongoing action in the game. Of particular interest were distractions threatening ongoing game performance and game maintenance strategies contributing to the continuity of action in the game. Results are reported for 19 children. Decision rules and categories developed in the investigation are appended.. (RH)

 * Reproductions supplied by EDRS are the best that can be made *
 * from the original document. *

ED223343

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC)

- X This document has been reproduced as received from the person or organization originating it.
- Minor changes have been made to improve reproduction quality.
- Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

Negotiating Playground Games

Kathryn M. Borman, David Barrett and
Padmini Sheoran

University of Cincinnati

Paper presented at the American
Sociological Association
Annual Meeting
San Francisco, September 7, 1982

"PERMISSION TO REPRODUCE THIS
MATERIAL HAS BEEN GRANTED BY

Kathryn M.
Borman

TO THE EDUCATIONAL RESOURCES
INFORMATION CENTER (ERIC)."

*This material is based upon work supported by the National Institute of Education under the grant NIE-G-79-0123 made to the first author. Any opinions, findings, etc., expressed in this paper are those of the authors and do not necessarily reflect the view of the Institute or the Department of Education.

PS 013187



INTRODUCTION:

The sheer amount of time children invest in keeping company with their friends is emblematic of the central importance of children's friendships in middle childhood and pre-adolescence. More than half their free time is spent in the company of peers to the exclusion of parents, other kin or other adults (Fine, 1980; Lever, 1978). Through a wide range of both work and play activities, children in groups pursue events likely to have the following consequences: 1) socialization into adult work and social roles, 2) reinforcement of evolving notions about sexuality and sexual behavior, and 3) provision of "adult-like" avenues for channelling aggression, in the case of boys, and nurturance, in the case of girls (Fine, 1980; Savin-Williams, 1980). The major purpose of this study is to define the particular ways children's informal interactions in groups are important in children's negotiations of playground games in school settings.

Interaction in the course of organizing and playing games has special importance in connection with anticipatory socialization into work and social roles, the first outcome mentioned above. Children gain at least an elementary mastery of abstract conceptions such as power, roles and strategies through participation in games. As Vygotsky (1978) has argued, play at games leads development because of the necessity in games for children inevitably to recognize the "implicit rules governing the activities they have reproduced in their games" (1978:129). Mental processes based on "higher mental functions" in Vygotsky's terms are grounded upon social, historical and cultural foundations. Since higher mental operations are "socially formed and culturally transmitted," it follows that "if one changes the tools of thinking available to a child, his (sic) mind will have a radically different structure" (1978:126). Vygotsky's emphasis upon the significance of the material milieu in the development of abstract thinking is extremely important for a cross-cultural examination of children's games where cross-cultural contexts not only include different societies but also different distinct groups with their unique configurations of cultural "tools" within a given society, for example, groups exclusively composed of either boys or girls.

The Separate Worlds of Preadolescent Male and Female Peer Groups

The set of generalizations most frequently occurring in the literature on informal interactions in children's and pre-adolescent's groups centers upon the differences between male and female activities (Hollingshead, 1949; Zachry, 1940; Douvan and Adelson, 1966; Maccoby and Jakclin, 1975). Girls' activities are less rambunctious and physically demanding than boys' and take the form of play at games involving one-on-one competition such as tetherball or racquetball. Also, girls are inclined to spend time with one or two others in exchanges promoting emotional and social support (Savin-Williams, 1980). Unlike girls' more intensive associations boys' groups are likely to be extensive, to involve friends and acquaintances, and to be more pragmatically organized, i.e., structured to include enough (and often, more than enough) players for kickball games and the like. Girls' circles are created from more intimate contact with one or two close friends. Although not any more stable than boys' groups, they are characterized by a "more close knit, intimate grouping" likely to provide a nurturant, accepting climate for formulating a sense of identity, the primary developmental task of the adolescent period. Boys' interactions, particularly in games and in team sports specifically, emphasize development of skills in strategizing and in managing others, both of which are related to successful adult performance in organizational settings (Lever, 1978).

There is considerable debate over the consequences of gender-related behavioral differences as determinants of adult outcomes. Lever has emphasized the negative consequences to girls who are usually not participants in competitive games organized in teams (Lever, 1978; Borman, 1980a). Lever argues that, by virtue of their exclusion, girls are disadvantaged in gaining skills in negotiating competitive interactions, managing large numbers of co-participants, developing and articulating strategic human encounters. All these capacities are important in defining managerial responsibilities in adult life, particularly in the world of work. Others, notably Gilligan (1981), argue that such an interpretation misses the point; instead girls (and later women), have alternate "meaning-making" social cognitive processes based upon a "morality of interpersonal

responsibilities" and oriented more toward preserving and fostering relationships than toward winning. It may be that females simply prefer not to bargain for competitive success in the playfield, instead investing their energies in affiliative interactions. However, in trying to understand male/female differences, it seems unreasonable to look exclusively to a "morality of interpersonal relationships" without also looking at the specific ways in which structures of game playing are actually negotiated by girls and boys on playgrounds.

What Develops in Play and Games?

Since most studies of children's naturally occurring play have centered upon the preschool child, it is hardly surprising that most of what is known about play as a context for developing social competence in interpersonal relationships is based upon the study of children's socio-dramatic play. These studies, beginning with Piaget's early observations of nursery school-aged children, have emphasized the importance of communication in structuring play. Piaget and later Garvey and Hogan (1973) and Mueller (1972) separately concluded that preschoolers were successful in their social communications 65% of the time, uttering "egocentric," failed messages in less than one third of their observed interactions. Unlike his successors, Piaget was mainly interested in failed messages for what they revealed about gaps in children's social understanding. More current researchers have emphasized the abilities children do in fact exhibit in their play encounters.

Socio-dramatic play has been recognized for its utility in serving as a laboratory for the development of other interpersonal skills which, like communication skills, have adaptive value in social situations. For example, the relationships among cognitive factors, motivational factors, social development and play have been realized by Soviet educators who explicitly program play activities to include role-taking or socio-dramatic play (Bronfenbrenner and Hamilton, 1978). Rubin and Pepler (1980) have recently reviewed a series of training studies each designed to incorporate skill development into the context of socio-dramatic play. These studies reveal the importance of socio-dramatic play in teaching 1) verbal communication skills and

altruism, while at the same time lessening aggressive behavior (Smilansky, 1968), 2) promoting intellectual and role-taking skills (Saltz and Johnson, 1974; Rosen, 1974), 3) increasing social problem-solving abilities (Spivack and Shure, 1974). However, Rubin and Pepler caution against pinning too much hope on these promising results. Because detailed observations of the interactions occurring during training were not provided by any of the researchers, it is difficult to determine whether adult instruction or socio-dramatic play itself was instrumental in promoting the observed changes.

The importance of naturalistic observations of children's play, from both a theoretical (Piagetian) and an applied (social competence development) perspective centers upon the content of play itself. The debate surrounds the question of whether or not play is "merely" assimilative and hence unchallenging to the extent that children adopt and enact very familiar, even stereotypic roles (girls are mommies; boys are daddies). In fact, Rubin and Pepler have reviewed a recent study employing observational methods (Matthews, 1977) in which the investigator noted that conflicts in play (specifically, arguments over sex-appropriate behavior in fantasy or socio-dramatic play) lead participants to question cherished beliefs and assumptions and to accommodate other perceptions of appropriate behavior.

Although socio-dramatic play requires the adoption of roles, which has implications for the development of social competencies, preschool-aged children do not always sequentially order a set of turns at play (Borman, 1980b). Also, in playing house, for example, children will often assign the least attractive roles (dog, cat, baby) to less popular children and orchestrate episodes of play that by no means allow for an orderly or equitable distribution of lines in the socio-dramatic script. It has been argued by Rubin and Pepler (1980) and others (including Borman and Lippincott, 1982) that the content of play is highly dependent upon the social cognitive capacities of the child. Although children give evidence in socio-dramatic play of social perspective taking and other skills, they are hampered 1) by a morality of constraint and 2) by an inability to keep track of their own and others' perspectives simultaneously. These two difficulties make a just distribution of roles and turns at play problematic. A

morality of cooperation and the skill to simultaneously coordinate one's own and others' perspectives both develop in late middle childhood (Selman and Bryne, 1974). These appear to demand that players be adept in collaboratively orchestrating offensive and defensive moves at one and the same moment.

Borman and Lippincott, (1982) observed that six-year-olds playing characteristically simple competitive games with relatively few rules were plagued with the following distractions to the ongoing game: 1) outside interference from children on the playground but not involved in the game, 2) verbalization of impatience by a player in the game whether by taunt or complaint, 3) abandonment of the game by one or more of the players and 4) changing the rules or changing the game. In the latter case, debate about the rules was minimal among observed first graders. However, rather than serving as a disruption, commentary functioned to focus attention upon game play itself serving as game maintenance routines preserving the continuity of play.

In fact, children in the complete set of observed games were adept at maintaining game structures; disruptions occurred in only 18% of all observed turns at play. Moreover, children's discussions of rules expressed a concern with retaining the continuity of play as well as a tendency to interpret rules so as to both assure more equitable distribution of turns at play and access to desirable roles in play, as the Farmer, "it" and to other roles associated with relatively greater power. Borman and Lippincott concluded that not only did verbal monitoring express the players' concern for game maintenance but also that play itself in games structured around a turn-taking procedure allowed children the opportunity to "gain experience in understanding the simultaneous relationships of different roles in the same game and in formulating procedural rules which benefit all participants." However, the games and pastimes initiated and maintained by these young children were truly uncomplex as outlined in Table 1. Hopscotch was the only activity in which players had to both await a turn (as opposed to being constantly active) and to assign turns according to a pattern of fixed rotation. Games most frequently observed among these children were those such as tag in which players were constantly active in pursuits having procedures governing the exchange of turns but without an equitable distribution of turns according to a turn-

taking format as is inherent, for example, in a team's batting order.

Social competencies generally are required for successful play by children in socio-dramatic play and in games. Taking another's perspective and acting upon the knowledge gained by doing so is expressed in children's verbal interactions during the course of play. This is especially true in games where children frequently articulate what they understand the rules to be and debate the successful or unsuccessful enactment of those rules. Children's understanding of social conventions is transparent in their utterances. For example, children of about six, taken in by outward, physical appearances, attribute an unintentional error in hopscotch (stepping on a line) to the size of a player's foot and not to either a lack of motor skill coordination or a lapse in concentration:

Sonya: You're out. # On eighters.

(to bystander) she's out.

Angela: Uh-Uh. (no)

Sonya: (loudly while demonstrating)

You got out on eighters. Right here. You gotta put your foot like this and it's too big. You keep steppin' on that line.

Angela: Uh-Uh (demonstrating): I went like this (and stepped in seveners) I picked up my marker.

(Transcript made April, 1978, Oyler School).

It is only later at eight, nine or ten that children discuss rules and the breach of rules in games in terms which reveal an understanding of 1) rules as negotiable and 2) errors as mistakes or cheating.

In a following excerpt from a transcript analyzed in the current study, two sixth grade girls (aged 12) demonstrate an active understanding of both these principles in their negotiation of Dina's turn at play in hopscotch.

Jodie: Are you out?

(No response. Dina throws her marker into the square numbered 4 and proceeds with her turn.

Three seconds pass).

Jodie: You're out.

Dina: No.

Jodie: You stepped on the line. I saw ya.

(Dina surrenders her turn as Jodie stands up and initiates her turn. Dina takes her place on the blacktop seated next to three onlookers).

Dina: (To onlookers). She didn't see me the other times!

(Transcript made May, 1980, Hoop School)

The logic operating behind the rule invoked here is something like this: "Stepping on the line constitutes a violation of the rules resulting in the loss of a turn at play but only if other participants in play observed the offense and call upon the player to make accounts." Although the younger girls in the first excerpt understand that stepping on the line constitutes a rule violation, their logic for defining it as such is quite different. It rests upon defining the relationships of physical features (e.g., the player's foot is too big to avoid encountering the line). Also, young children are likely to enforce their decisions as Sonya does by enacting the violation. Concrete operational intelligence applied to an understanding of game rules appears to propel players to specify carefully (indeed concretely) the constituent physical features of a rule violation. Discussion of the rules involved in the perceived error suffices for abstract reasoners.

Research Questions:

It follows from the preceding discussion that children's negotiations of playground life are important in several respects. First, these interactions provide a context for anticipatory socialization into work and social life. Second, girls and boys are likely to initiate and sustain activity in radically different sorts of games. Last, with increasing age, both boys and girls develop increasingly sophisticated strategies for negotiating rules, roles and power in the context of games.

The following questions guide the analyses to be described in this study.

1. What patterns of player activity and patterns of turn-taking characterize the games freely initiated and maintained by third and sixth grade children at the three elementary schools of interest (Covedale, Hoop and Oyler)?

2. What patterns of time spent by children in activity preceding the game, organizing the game and playing the game characterize children's negotiations of playground life? How are such patterns uniquely characteristic of the frequently observed games of boys and girls?
3. What patterns of distractions are associated with turns at play in boys' and girls' games?
4. What patterns of game maintenance strategies are associated with twins at play in boys' and girls' games?

By analyzing the set of patterns described in the questions above, a clear understanding of the structure and process of children's informal interactions in their spontaneously formed and unsupervised groups can be achieved.

METHODS AND PROCEDURES:

Sample:

The sample in this study included 13 girls and 10 boys. This group contained four third grade girls and eight sixth grade girls, four third grade boys and six sixth grade boys. Eight of these children had previously been classified as game shunners, indicating on playground logs an aversion to active participation in organized games and a preference for activities such as hanging around, observing others and so forth. Twelve children had previously been classified as experts on the basis of their reported patterns of playground game participation in a single event while four were classified as samplers whose playground logs revealed their regular involvement in more than one playground game. It had been hoped that one child of each sex in each grade from each of the three game statuses - expert, sampler, and shunner - could have been observed. However, inaccessibility of certain children due to absence from school, inclement weather and other difficulties limited the sample to the number of children included here.

The Data:

The data for this study consist of 23 audio taped records of children's spontaneously organized playground activity. Children who served as focal players were outfitted with a small backpack containing

a compact tape recorder (Sony BM-11). In addition to the taped record of each child's playground activity, an observer recorded in field notes the identities of speakers, locations of interactions and the progress in minutes and seconds of ongoing events. These taped records were gathered during a three month period in Spring, 1980 on the playgrounds of three elementary schools. During this period the following distribution of games was recorded:

Distribution of Games:

<u>Game</u>	<u>Focal Player</u>	<u>School</u>
<u>Kickball</u>	1. Michelle, third grade, girl	Oyler
	2. Tom, third grade, boy	Oyler
	3. Karl, third grade, boy	Covedale
	4. John, sixth grade, boy	Covedale
	5. Mark, sixth grade, boy	Hoop
	6. Sam, sixth grade, boy	Hoop
	7. Steve, sixth grade, boy	Hoop
	8. Ed, sixth grade, boy	Hoop
<u>Hopscotch</u>	1. Gina, third grade, girl	Covedale
	2. Dina, sixth grade, girl	Hoop
	3. Cheryl, sixth grade, girl	Oyler
<u>Jump Rope</u>	1. Angie, third grade, girl	Hoop
	2. Sally, sixth grade, girl	Hoop
<u>Chasers/tag</u>	1. Regina, third grade, girl	Oyler
	2. Mahala, sixth grade, girl	Oyler
<u>Racquetball</u>	1. Tammy, sixth grade, girl	Hoop
<u>Softball</u>	1. Coleen, sixth grade, girl	Covedale
<u>Four-Square</u>	1. Ronja, sixth grade, girl	Covedale
<u>Tetherball</u>	1. Beth, third grade, girl	Covedale

In addition, three transcripts were made for children who did not participate in any game-playing activity. A last transcript was judged unusable for these analyses.

The Analyses:

Two sets of analyses were conducted in order to answer the questions of interest. The initial analyses centered upon how children structured their activity on the playground. Here the specific focus was upon both the structure of the activity itself operationalized as the pattern of

turn-taking and the allocation of players' activity during the course of the game. Player activity was dimensionalized simply as "players constantly active" and "players not constantly active." Also, the temporal nature of activity structures was determined. Specifically, the time spent preceding, negotiating and playing the game was calculated for each focal player.

The second set of analyses centered upon the process of game play itself. Here interest was principally upon utterances children made in monitoring ongoing action in the game. We were particularly interested, on the other hand, in distractions which threatened ongoing game performances and, on the other hand, in game maintenance strategies which positively contributed to the continuity of action in the game.

Sets of distractions and maintenance strategies were not established a priori but, rather, were generated from the data through careful analyses of written transcriptions of audio taped records and field notes. The set of decision rules and categories are contained in Appendix I. Reliability for two coders (Borman and Barrett) was calculated as a percentage. An 85% agreement was achieved by the two coders for independent codings of two full transcripts. Subsequent analyses were conducted independently by the two coders who consulted on difficult cases.

Results and Discussion

Results are reported for 19 children whose transcripts included records of their participation in playground games. These results are organized around analyses of game play itself and events leading directly to game play.

Portions of players' transcripts not taken up with events either leading up to game play or in game play itself were not considered in these analyses. The fact that 83% of the children for whom transcripts were made participated in at least one game is itself an important finding. Children are more likely to play a game than not during the single period of their day in school when they have relatively free choice of behaviors.

Another important aspect of the observed games is their ubiquity. Although material conditions varied across the three playgrounds, there was a fairly equitable distribution of the most frequently occurring game, kickball, and precisely the same distribution of the next most

frequently played game, hopscotch. There are, however, important points of contrast. First, at Oyler kickball is the sport of younger children while at Hoop it is played by older boys. The two recorded kickball games at the third school, Covedale, were played by a boy from each of the two grades. Second, play at games generally was simply more likely to take place at the latter two schools. In fact, hopscotch, kickball and variants of tag were the sum total of observed games at Oyler. The trend at Oyler was for older children to be involved in games in an off-hand way if at all. Thus, a third point of contrast is inherent in the developmental profiles of the three schools with younger children at Oyler more likely than older children at the same school to be involved in games. The reverse is true for the other schools, although sixth grade girls at Hoop with the exception of three or four athletic and charismatic "stars" were desultory in their pursuit of game play, often flirting, practicing cheers or hanging around with same sex peers. This pattern of behavior was in strong contrast to that of their male counterparts which was characterized by deep and persistent commitment to play in games.

Developmental trends observed in the data make sense in light of a perspective drawn primarily from Piaget but also informed by Vygotsky. In this context, older children would be expected to engage in games that demand an abstract understanding of competitive game structures, strategies, rules and roles. Girls, however, are socially coerced by prevailing local and more general norms from seeking entry into predominantly "male" games such as kickball. In Vygotsky's terms, the "tools of the culture" may be provided for those girls who with some social risk seek to use them but they may be experienced by girls in different ways than by boys whose engagement in play is considered normative. As a consequence, girls may well adapt to the same milieus in different ways than boys. Indeed, in addition to motor skill proficiency girls who were observed in play in male dominated games of kickball and racquetball gave evidence of what can only be termed charismatic, assertive and comic skills, abilities which tended not to surface in female-dominated games and activities.

Her charismatic qualities assured Tammy, a sixth grade girl at Hoop, accordance of special privileges in racquetball play by her male classmate who had taken on the task of self-appointed referee of the ongoing game. Tammy who ranked high in popularity among her classmates was also

a skillful game player, frequently beating boys in racquetball play. Her playground logs indicated a distinct preference for racquetball play; 12 of 14 logs made reference to the game.

The following transcription of the initial 10 seconds of play in her turn illustrates the supportive role played by the "referee" Martin. (Tammy walks onto the court to face her male opponent):

Martin: Come on, Tammy.

Tammy: (pointing) I get that side.

Martin: Show (him your stuff). (pause)
Come on Tammy, show 'im who's boss.

(3 seconds pass)

(Tammy and her partner commence play. Tammy hits the ball out of bounds).

Bystander: Boo!

(3 seconds pass)

Martin: Come on, Tammy. You can do it.

(Transcript made May, 1980, Hoop School)

Tammy receives four encouraging utterances from the "referee" Martin in less than 10 seconds at the outset of her turn. Two sets of players had faced each other during the time Tammy stood in line awaiting a turn. During the six minute period Tammy spent in line, Martin was recorded making only one supportive utterance ("What a shot, Brian.") It seems clear that a skillful female player is accorded special encouragement. The following is from the observer's field notes: "It is quite clear that Tammy has the leading edge in this game. Martin consistently winks at her mistakes and at her opponent's good moves."

Participation by girls in kickball was never observed at Covedale but was a frequent occurrence on the other two playgrounds. However, in a field of 35 players at these schools, typically only two or three girls were present. Usually they held a membership on the same team and appeared to position themselves in close proximity as if to lend each other support.

In a transcript made at Hoop (see Appendix II), two girls at play in a recorded game of kickball were observed to utilize especially vivid assertive, even aggressive approaches to play. Alesia was a particularly large and well-developed black sixth grader who widely reported her participation outside school in karate lessons. In fact, as Steve approached

the playfield at the outset of recess period, Alesia accosts him, yells "kick her in the face". Alesia retorts "I know you love him, but God.." (There is talk about being gay recorded later in this game). Alesia later participates in assaulting a marauder who attempts to take the ball being used in play and freely engages in active support and playful banter with her colleagues. And, this game, as most kickball games at Hoop, was racially mixed.

Alesia: (shouting) Two out and I'm up!
Mike: (commenting on a play) He's safe!
Alesia: (into take recorder) (laughs)
Unknown boy: Yeah, blackface!
Alesia: I'm only wonderful. I didn't say (how far).
Mike: (initiating a conversation with Steve.) Certain people hafta have the ball.
Steve: Well, you shoudn'ta ran.
Mark: Let's go, Alesia.
(encouraging her as she takes her turn)
Mike: (as Alesia begins to run to first) Go getcher big fat butt...Ohh! Run!
(3 seconds pass as Alesia holds up on first).

Alesia could "dish it out" as well as take it. In regulating the movement of a teammate, she bellows: "Larry, get outta there, you little bum!" At a later point in the transcript she is recorded saying "you fat little (())". In response to the obliterated and no doubt abusive taunt loudly and from the field come the shouted letters "D-A-R-N." In field notes Alesia and a white male teammate are described as doubling up with laughter and as together in a duo initiating a round of punning with the outfielder.

Not all girls were accorded the same privileged status in the game as Alesia. A less accomplished female player, coming up for her turn to kick in the same game was greeted with: "You oughtn'ta throw so hard, it's only a girl, your girlfriend!" Apparently, in order to be engaged as a respected teammate, as Alesia is, girls had to be perceived as equally and perhaps as even more skilled than male team members and not as girlfriends.

The appropriate use of humor to negotiate relationships in the game can be observed in Alesia's ready willingness to pun. Another girl in

the same game used humor to defuse a potentially volatile situation arising over a close call. As an argument broke out, a member of the offense, the tallest boy in the sixth grade at the school, came out from behind the plate. As he approached the infield, the female fielder initiated the following conversation:

Girl: You wanna fight about it?

Scott: Yeah

Girl: Go join the Army!

Since Scott utters no recorded response and game play is soon underway, the statement appears to effectively disarm this male player.

Girls who play boys' games maintain what appears from their interaction in play to be a clear idea of their "right to play." Girls do not haltingly enter the game or hesitantly negotiate a turn. Girls, like boys, actively bargain for a favored position in the kicking order. The transcript recorded for a third grade girl, Michelle, at Oyler displays the ease of entry and bargaining for a turn that characterize these negotiations:

Michelle: (while walking towards the diamond): Hey, (Curtis).
(2 seconds)

Michelle: # Can I play? (2 seconds) Can I play?

Curtis: O.K., you're after us. # She (()) him.

Michelle: (to a player): Be after you...
(later in the same transcript).

Michelle: I'm after you.

Richard: You're after me!

Unknown boy: After me!

Richard: Otherwise I kick ya off the team

Michelle: Uh.

Unknown boy: I'm after him then.

Michelle: Well, I'm after you.

Michelle maintains her right to play and continues to bid for a favored position in the face of threats of expulsion from the team (apparently not, however, directed at her).

An interpretation of the data just reported should be placed in perspective. As a general rule, girls avoided participation in male-dominated games. This was especially clear at Covedale school where no girls were present in any recorded games of kickball. Compared to Hoop,

the other school with a substantial black minority, Covedale had far more racially segregated games as evident in playground log data. As an example, disproportionate numbers of black girls at Covedale reported tetherball as a modal game. Although kickball was to some extent racially integrated at this school it was exclusively male. Generally, even when girls were admitted to play, only a small minority participated, and these were merely tolerated, it appeared, because of their consummate athletic skill and personal characteristics, notably some combination of charismatic, assertive and comic gifts. Thus, girls who play boys' games are likely to attend a school undivided by racial cleavage and perhaps relatively undivided by social differences as well.

As a socially homogeneous setting Oyler school was not faced with the same issues as the other schools. Within the Urban Appalachian culture, girls and women appear to be the cultural standard bearers who negotiate social exchanges for their families through church and community participation. This accords women an important status in families where economic and social privileges may evolve from women's interactions with the majority culture. Michelle's participation in kickball reflected perhaps the most equalitarian system of role relationships observed in any similar transcript featuring a girl participating in male-dominated game play. Direct comparisons between Michelle's game and the games in which either Tammy or Alesia were recorded at Hoop are extremely difficult because of the age differences. It may be that older girls received both more flattering attention (as in Tammy's case) and at least equally and perhaps more disparaging attention (as in Alesia's case) because girls qua girls are more salient to preadolescent boys. It may be that a player is a player so far as a third grader is concerned and that player sex has little particular importance in a male-dominated game at a younger age. However, this may not uniformly be the case across all mixed-sex games. In games with relatively equal numbers of male and female participants such as chasers, girls as a group were chased by groups of boys and vice versa.

Several conclusions follow: 1) girls are unlikely as a general rule to participate in male-dominated games, 2) girls who do participate have unusual and highly attractive (to male game organizers) combinations of athletic skill and personal attributes, notably charisma, assertive and comic abilities, and 3) preadolescent girls as opposed to younger girls at age nine are likely to experience power rules and roles in male-dominated games in different ways than their male colleagues in the same

Analysis One: Patterns of Turn-Taking and Player Activity in Games:

Results of the initial analysis of all observed games undertaken by the 19 focal players are reported in Table 2. Here turn-taking characteristics and player activity are dimensionalized in a five x two table comprising four categories of observed turn-taking procedures, a no game category and two categories of player activity, "players not constantly active" versus "players constantly active." Clearly, the largest number of observed games (N=17) fell into the top left cell. Altogether, seven different games were sorted into this cell, each distinguished by two features: 1) assured turns for all players in a fixed pattern of rotation and 2) the consequent demand that players remain inactive (usually while awaiting a turn) for some period of time in the game. Of the seven games, the most frequently occurring was kickball (N=8), followed in frequency of occurrence by hopscotch (N=3) and jumprope (N=2). One case each of racquetball, softball, four-square and tetherball was also observed.

Only one observed instance of two other games (chasers and tag) was recorded. Both chasers and tag demand that players remain inactive for a portion of the game and both have procedures governing an exchange of turns; however, these procedures do not include provisions for a fixed rotation of turns assuring each player a turn as "it" (in tag) or as the chaser (in chasers).

The remaining activity, stunts, is more play-like than gamelike: stunts, as performed by the observed sixth grade girl and her three same sex friends at Hoop constituted a set of leaps, jumps and other moves associated with cheerleading. In fact, these acrobatics were accompanied by the repeated chant, "We're the Class of '86!"

These data include all the transcribed playground activities observed for both grade levels at the three schools in the spring of 1980. They suggest that by grade three, children have made a shift to involvement in games relatively more complex than those of younger children (Table 1) but relatively similar in complexity to those of older children in grade six. What seems most important is that with increased age comes increased participation in a wider variety of games of high complexity. It may be that an important shift in game playing skills, interests and so forth is accomplished by grade three and that these skills refine and elaborate themselves in a wider variety of

games by age 12. Certainly this conclusion is suggested by the trend in the data reported in Table 3.

Analysis Two: Patterns of Time Preceding, Organizing and Playing Kickball and Hopscotch Games:

Results of the second analysis of observed games are reported in Tables 4 and 5 and in Figure 1. These results, with a single exception, are for all kickball games in which boys were focal players and for all hopscotch games in which girls were focal players. These two sets of games were selected for analysis because of their greater frequency of occurrence in comparison with other observed games. The single exception in kickball was the transcript recorded for Michelle, the only female focal player who pursued the game.

On data for kickball players, a repeated measures analysis for the three different time periods yielded a statistically significant main effect for time and a significant two-way interaction for time x players as reported in Table 4. Children at Oyler took less time to negotiate play in kickball than children at either Covedale or Hoop while children at Covedale were generally less quick to enter either negotiations or game play. Children at Hoop spent less time finding a game and spent more time both negotiating and playing kickball than their counterparts at the two other schools. The general trend at all three schools was for kickball players to spend more time in the game itself than in activity preceding or organizing the game.

For hopscotch play, as reported in Table 5, a repeated measures analysis similar to the analysis reported for kickball in Table 4 yielded no significant main effects or two-way interaction for time x players. Figure 1 clarifies the two sets of findings for kickball and hopscotch just reported. The marked contrast is in time spent in game play itself. Kickball players spend four times the amount of time involved in their play than hopscotch players, all of them girls. Moreover, organizing play and negotiating rules, positions and so forth is also a lengthier process in kickball game preliminaries. Kickball players take ten times as long as girls in hopscotch to sort through these matters.

Piaget sniffed at girls' games and turned his attention to boys' games of marbles (1965). It was Piaget's observation that girls' games, and specifically hopscotch, presents little challenge because of its

relatively low complexity. The data reported here suggest that over time and distance hopscotch has retained its characteristic simplicity relative to boys' games, kickball, specifically, in this case. Since two players are the usual number in hopscotch, there is really very little to organize in the game except to establish the order of turn-taking. Kickball with its typically large number of players possessing varying levels of skill and ability requires a much lengthier process to set things in order.

Boys' negotiations reflect a profound interest in power relationships and the establishment in the social order of the game of a relatively equal balance of power based upon athletic ability. Entry into the game is predicated upon the capacity to perform. As he approaches Kerry, a sixth grade boy at Hoop who is choosing team members, a boy asks, "Can I play?" The response is "Can you run?" Later a boy urges "Get Emerson! Get Emerson He can kick far." When an "unfair" distribution of skill is perceived by a player, and particularly when the balance of power favors the opposition, the player is likely to threaten to quit, as did Eddie, a focal player at Hoop.

As the game is about to begin, the division of roles is negotiated: Unknown boy: "Curt, play third. Mark, you got first? I got short stop." The lengthiest negotiations centered upon the kicking order. Moreover, an order established at the outset of the game would likely be revamped later by players jostling each other in line:

(): I'm after Kerry.

Mike: Ah, I'm after (()).

Unknown boy: You're third and he's fourth.

Unknown boy: Mike... then Mike 'n' then me.

Unknown boy: No. You're after Mike, 'n' Stacy's after Deacon, 'n'...

(transcript made at Hoop, April, 1980)

Even though roles and power relationships are explicitly discussed in the manner illustrated above, rules are only obliquely stated and generally with reference to a specific player action. For example, a member of the defense warns a runner: "No leadin' off at all. ' Not a inch! Not even a centimeter!" During pre-game negotiations children typically did not either review among themselves an established code of rules or argue about playing according to one or another set. Instead,

once player roles had been established, game play was initiated without mention of rules governing play. Rules may have been consensually established by kickball players who were seasoned veterans in the game by spring. Rules become problematic and are discussed only when they are threatened. Game players are ultimate pragmatists.

Analysis Three: Distractions Associated with Turns at Play in Boys' versus Girls' Games:

The numbers of children at play during recess made it difficult in all games to avoid the tug of distractions and disruptions to ongoing play. However, some games were more vulnerable to these problems than others both because of their physical location on the perimeter of the playground and because, especially with older girls, play was an easy target for flirtatious boys. Games of jumprope and hopscotch, with small numbers of players are an easy mark for playground marauders.

Results for the analysis of interest here are reported in Table 6. Distractions/disruptions took the form of 1) outside interference by the entry of new players negotiating a slot in the turn-taking order of an ongoing game, 2) complaints, taunts, disruptive protests and the like by players in the game, 3) changing the rules, negotiating a fundamental shift in game playing strategies and so forth by players in the game, and 4) abandoning the game. Abandonment of an ongoing game constituted the most dramatic and obvious form of disturbance. Cessation of play for some period of time followed in the case of each recorded distraction (n=110) enumerated in Table 6.

Results of the chi-square analysis performed with these data indicate significant differences between boys and girls in the type of distraction associated with a turn at play. Specifically, girls are far more likely to experience outside interference than boys. In fact, outsiders interrupted play in girls' games almost four times more often than in boys' games. Although abandoning the game occurred with relative infrequency across all games, girls were more likely than boys to leave a game. Outside interference frequently was closely linked to abandonment of the game. In four of the seven cases in which girls left games of jumprope, hopscotch or tag, outside interference preceded abandonment of play in the game in question. The link between

a disruption and leaving the game was especially clear in the case of Gina, a third grade girl at Covedale, playing hopscotch:

(Gina is out. Lisa begins her turn)

Boy: (in background, shouting)

"HEY, HEY, HEY, HEY"

(Lisa throws her marker and hops. As she takes her turn, some boys run across the hopscotch area)

Boy: (in background) That was my ball! That was my ball!

Gina: (())).

Girl: Can I play?

(It is not known whether this was asked of Gina or Lisa)

(()): (())

(()): (())

Lisa: What did you call me?

Boy: (in background) Get it! Get it!

Unknown boy
or girl: (())

Gina: How (()) did you take?

(mumbled conversation between Gina and Lisa as game continues. Sound of markers being thrown can be heard)

Gina: You're out. You forgot to pick up your marker.

Lisa: (())

Gina: (())

(Gina take a second turn. Some boys interfere in the 8, 9, 10 numbered area of the hopscotch form. Gina and Lisa leave the hopscotch area and walk toward the tetherball area)

(Transcript made ad Covedale School, April, 1980)

In the short space of less than two minutes these players have been plagued by three incidents of outside interference. Walking through an ongoing game of hopscotch was frequently observed and occurs here twice. Although new players are easily absorbed into ongoing kickball games, in hopscotch where players begin the game in square one and proceed through the sequence of numbered squares as the game progresses, entry of a new player presents a real dilemma. Should play cease and begin anew in order to give all players a fair shot? Or should the new player be admitted to the game with the obvious disadvantage of having missed one or more turns at play?

A single case of abandoning the game was recorded for a male focal player, Sam, who participated in a kickball game in which play was terminated after the ball used in the game was accidentally lofted onto the school roof and became lost to the players.

Overall, distractions appear much more likely to occur in the games analyzed in this study than in the games of younger children analyzed by Borman and Lippincott (1982). While only 18% of recorded turns at play in the younger children's games of hopscotch, tag, London Bridge and the like were plagued with disruptions, 73% of turns at play in the games of third and sixth grade children were associated with either a distraction or a game maintenance strategy. This finding suggests both that older children are more often engaged in verbal monitoring of their play than younger children and that recess periods are more likely than the time before school in the morning to produce circumstances, particularly overcrowding, which heighten opportunities for disruptions on the one hand and game maintenance on the other.

Analysis Four: Game Maintenance Strategies Associated with Turns at Play:

Results of the analysis of game maintenance strategies in boys' and girls' games are reported in Table 7. Maintenance strategies took the form either of game monitoring statements or of procedural questions. In addition, maintenance strategies included actions contributing to the continuity of play. Rounding up loose equipment; the ball in racquetball, for instance, or finding a new marker to replace one lost during hopscotch play serve as examples here.

A chi-square analysis performed on game maintenance strategies associated with turns at play in boys' versus girls' games produced non-significant results. Boys and girls vary only slightly in the amount of game maintenance work they carry out in games. Both utilize fewer procedural questions than monitoring statements. Leaving the game to locate stray equipment occurs least frequently.

The most common form of maintenance work in both boys' and girls' games was the oral record of ongoing events that was eagerly maintained by bystanders and other players. In virtually all cases monitoring and procedural questions dealt with the physical activity at hand in relationship to the rules of the game. For example, in kickball, a procedural question is raised by Sam who has heard his name being called out:

Sam: "Sam: (rising intonation, indicating a query)
What?

(()) HEY!

Sig: What? Who's pitching, me?

Mark: # Yeah, you!

Later in the same game Sam asserts "I thought two fouls was one out" to which Mark replies "It is - he already hit two fouls." These exchanges promote an orderly round of play in the game by allowing a consensual determination of game playing procedures in problematic situations such as this in which the pitcher Sam was unaware that two fouls had already been made by the boy at the plate.

The most important feature of this analysis is the similarity of patterns of game maintenance strategies used by girls and boys. The stress in each case is upon utterances designed to monitor ongoing action. These statements are likely to not gain a response and therefore, appear to function as utterances which the speaker uses to keep him or herself actively engaged. It is almost as though players are portraying to themselves and others their continued alert and ready condition. Since, as we have seen in earlier examples, a player typically continued a turn in hopscotch until "officially" seen by a co-participant in play, monitoring seems an important strategy to employ in order to assert one's right to a turn and to acknowledge one's opponents' mistakes or attempts at cheating.

Conclusion:

Far from being merely assimilative experiences as Piaget (1965) has argued, games appear to provide what Vygotsky (1978) plainly saw as events that lead cognitive development. The most troublesome aspect of the findings reported here from the authors' perspective is that different games are generally played by boys and girls and that boys' games provide the far richer environments for learning abstract concepts of power, rules and roles. Even more disconcerting is the related finding that girls who play boys' games occupy an exceedingly awkward status while doing so.

As we have reported, boys spend more time in the process of negotiating and organizing the game. This experience provides them the opportunity to actively negotiate both roles as players and power in



connection with the fair distribution of skills across two teams. Once game play has begun, boys remain engaged in play for a longer period of time and suffer fewer interruptions in their play than girls. Because their play in team games provides more complexly problematic situations their discussions of rules during the course of the game is likely to be far richer than discussion by girls in games such as hopscotch.

Girls who play boys' games provide a very interesting group for study. Their especially pronounced charisma, assertiveness and comic flair in connection with their perceived athletic prowess assured them a place on male-dominated teams. What of girls who may possess athletic skill but who lack the personal qualities apparently necessary to propel them into play? These girls must either be content to watch or to organize and play typically girls' games such as hopscotch. A clear case of a girl who chose the latter alternative was Dina. Dina, a member of a softball team was outside school (see Appendix II), spent much of her recorded time during recess milling about. At one point she commented to the observer that she would prefer to play with boys but that she was not sure they wanted her. It seems clear from the experience of Tammy and especially from the events surrounding Alesia in kickball that preadolescent girls run a great social risk in attempting to play boys' games.

Gilligan's (1980) argument that girls and women possess a frame of reference that inhibits their involvement in competitive activities seems to miss the point. As long as norms generated in the larger society hold in the society of children, girls who attempt to excel in male-dominated activities will either be dismissed as mere girlfriends and treated accordingly, accepted as charming, skilled and deserving special treatment and treated accordingly or perceived as unusually assertive and aggressive and treated accordingly. None of these perceptions and consequent relationships accords girls egalitarian status. In our society (including within it a society of children) there still appears a great reluctance to shake off stereotypic notions about what girls should do and how they should act when in social situations and especially in critical exchanges in negotiating power, rules and roles.

References

- Borman, K. and Lippincott, N. "Cognition and culture: Two perspectives on 'free play'" In K.M. Borman (ed.) The Social Life of Children in a Changing Society. Hillsdale, New Jersey: Lawrence Erlbaum Associates, 1982.
- Douvan, E. and Adelson, J. The Adolescent Experience. New York: Wiley, 1966.
- Eifermann, R. K. "It's chid's play." (1972) In J.S. Bruner, A. Jolly and K. Sylva (eds.) Play: Its role in development and evolution. New York: Basic Books, 1976.
- Fine, G. A. "The natural history of preadolescent male friendship groups." In H.C. Foot, A.J. Chapman and J.R. Smith (eds.) Friendship and Social Relations in Children. Chichester: Wiley, 1980.
- Fink, R.S. "Role of imaginative play in cognitive development." Psychological Reports, 39:895-906, 1978.
- Garvey, C. Play. Cambridge: Harvard University Press, 1977.
- Gilligan, Carole. In Another Voice. Cambridge: Harvard University Press, 1980.
- Lever, J. "Sex differences in the complexity of children's play." American Sociological Review, 43:471-482, 1978.
- Maccoby, E. and Jacklin, C. The psychology of sex differences. Palo Alto: Stanford University Press, 1975.
- Mathews, W.S. "Sex role perception, portrayal and preference in the fantasy play of young children" Paper presented at the Biennial Conference of the Society for Research in Child Development, New Orleans, March, 1977.
- Piaget, J. The moral judgment of the child. New York: The Free Press, 1965.
- Rosen, C. "The effects of sociodramatic play on problem-solving behavior among culturally disadvantaged preschool children". Child Development, 45:920-927, 1974.
- Rubin, K.H. and Pepler, D.J. "The relationship of child's play to social-cognitive growth and development." In H.C. Foot, A.J. Chapman and J.R. Smith (eds.) Friendship and Social Relations in Children. Chichester: Wiley, 1980.
- Savin-Williams, R. "Social interactions of adolescent females in natural groups." In H.C. Foot, A.J. Chapman and J.R. Smith (eds.) Friendship and Social Relations in Children. Chichester: Wiley, 1980.

References (continued)

Selman, R. and Byrne, D. "A structural-developmental analysis of levels of role-taking in middle childhood." Child Development, 45: 803-806, 1974.

Spivack, O. and Shure, M.B. Social adjustment of young children. San Francisco: Jossey-Bass, 1974.

Vygotsky, L.S. Mind in society. M. Cole, V. John-Steiner, S. Scribner and E. Souberman. (eds) Cambridge: Harvard University Press, 1978.

APPENDIX I

Determining Distractions and Game Maintenance Procedures

Distractions:

Distractions are events that challenge the continuity of the game and are responded to as such by players in the game through (a) their verbalization of an acknowledgement of the disruption by a responsive threat, taunt, etc., or (b) their physical retaliation or challenge in fighting.

Distractions constitute the initiating utterance (or action) and all responses attached to it.

Distractions are concluded either through (a) acquiescence, bargaining or (b) fighting or (c) no resolution.

Distractions in the 23 transcripts analyzed here took the following forms:

1. Interference by outsiders
 - (a) entry of new player(s) (or attempted entry)
 - (b) walking through the game by outsiders or bystanders
 - (c) teasing, hasseling or kibbitzing by outsiders, or bystanders.
 - (d) stealing game equipment.
2. Verbalization of impatience, taunts, complaints, etc. by participants
3. Abandonment of the game
4. Changing the rules, changing the game, cheating, challenging rules, challenging strategies.

Game Maintenance Procedures:

Game maintenance procedures include strategies that signify active player concern with structuring the format of the game including establishing who has power, rights, etc., in the immediate context of a specific move, turn, etc. Unlike a distraction, a game maintenance maneuver is a kind of monitoring of events internal to the activity of the game itself.

Game maintenance procedures include the initiating utterance (or action) and all responses attached to it.

Game maintenance procedures may be carried off in a cursory manner without any negotiation (i.e., Play A yells "Safe" and receives no response from the other plays). There may be a give and take (i.e., Player A yells "Two outs," B responds "Three outs," C responds "Two outs").

Game maintenance procedures in the 23 transcripts analyzed here took the following forms:

1. Assertions rendered as judgments about player moves, for example, statements about a player's turn-taking status. Also comments such as "safe" or "out," negotiations about players' batting or kicking order are included here.
2. Procedural questions regarding activity in the game. for example, question regarding a decision about the kicking order in a kickball game.
3. Actions contributing to the continuity of play, for example, fetching a ball that has landed on the school roof.

Figure 1

Profile of mean number of seconds for kickball and hopscotch players' time spent preceding game, negotiating game and playing game.

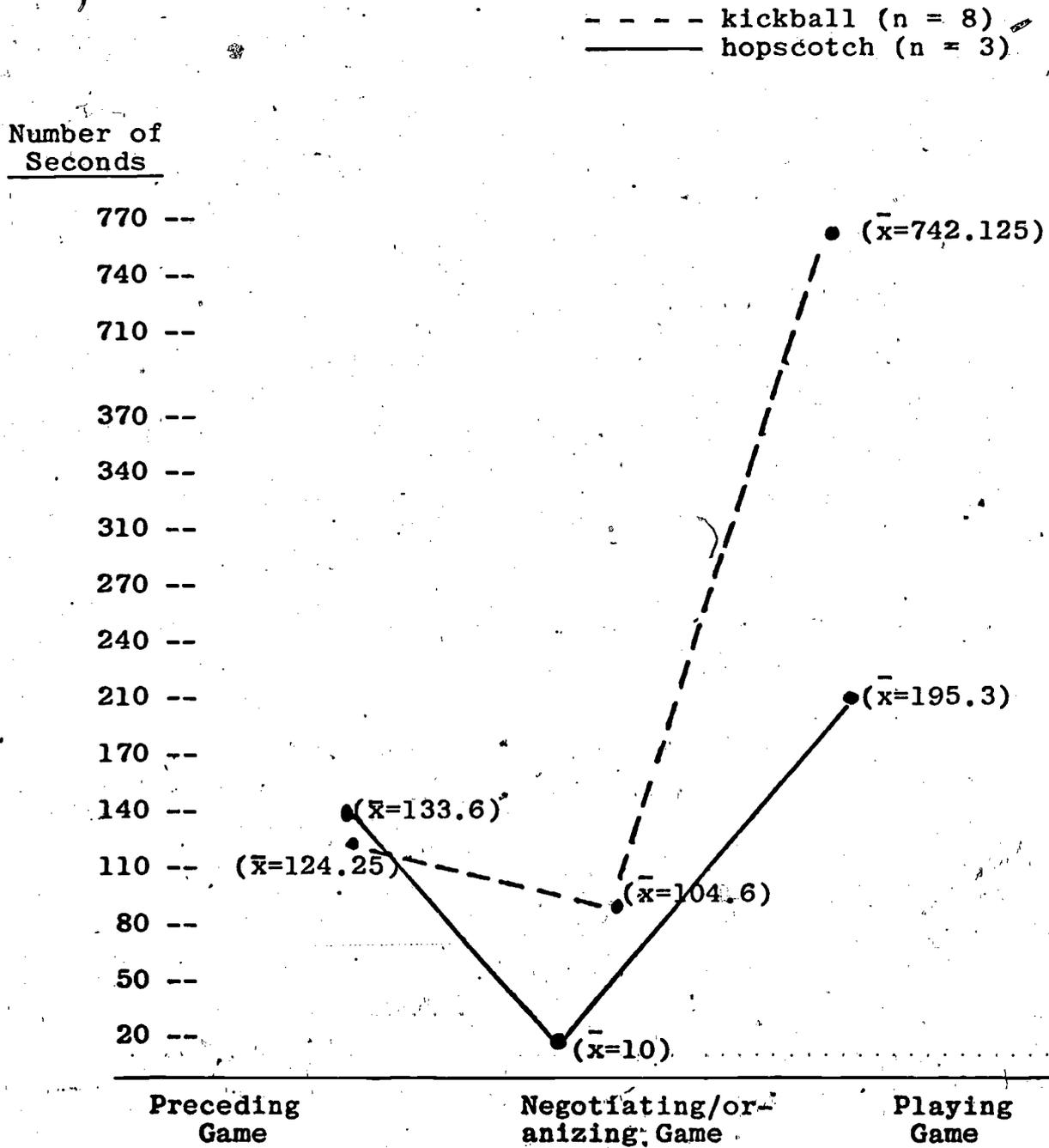


Table 1

Games of First-Graders Classified by
Their Turn-Taking Procedures

Games with assured turns in a fixed rotation	Games without fixed rotations but with procedures governing exchange of turns	Games with neither rotations nor exchange procedures	Games without turns
----------------------------------------------	-------------------------------------------------------------------------------	------------------------------------------------------	---------------------

Players not constantly active	Hopscotch (N = 1)	Kissers & chasers duck, duck, goose	(N = 0)	(N = 0)
All players constantly active	(N = 1)	farmer in the dell	follow the leader; London Bridge (N = 2)	running races N = 1)

Table 2: Games of Third and Sixth Graders

Classified by Their Turn-Taking Procedures

	Games with assured turns in fixed rotation	Games without fixed rotations, but with procedures governing exchange of turns	Games with no rotation, no turn-exchange rules	Games with no turns	No Games
Players not constantly active	Jumprope (N=2) Kickball (N=8) Hopscotch (N=3) Racquetball (N=1) Softball (N=1) 4-Square (N=1) Tetherball (N=1)	Chasers (N=1) Tag (N=1)	(N=0)	Stunts (N=1)	(N=3)
All players constantly active	(N=0)	(N=0)	(N=0)	(N=0)	(N=0)

Table 3

LEVER STRUCTURAL DIMENSIONS: GAME CLUSTERS

percentages

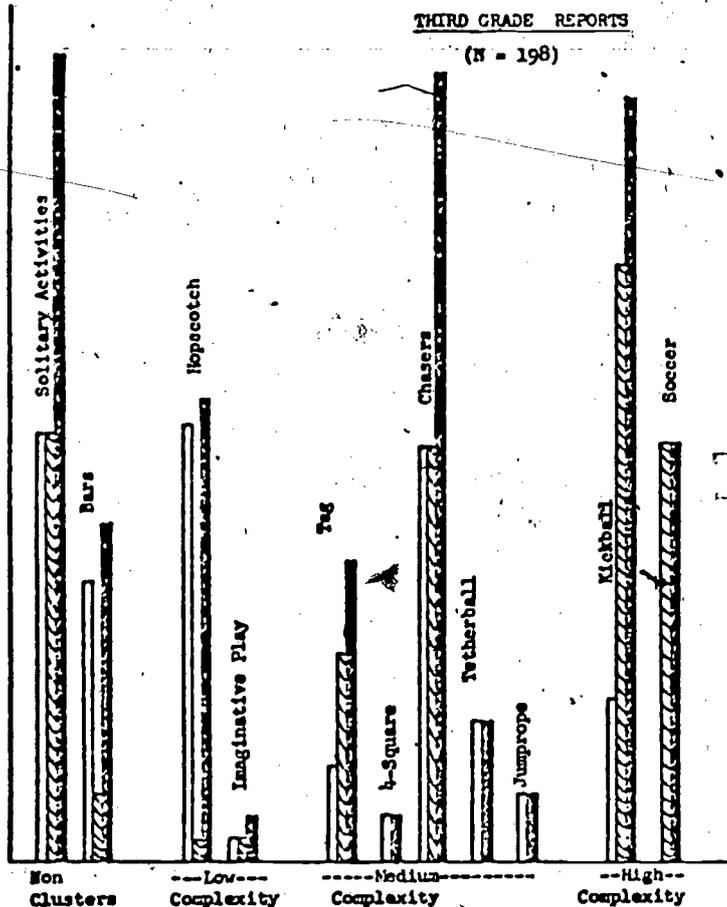
21

20
19
18
17
16
15
14
13
12
11
10
9
8
7
6
5
4
3
2
1

THIRD GRADE REPORTS

(N = 198)

Girls
Boys
All students



LEVER STRUCTURAL DIMENSIONS: GAME CLUSTERS

SIXTH GRADE REPORTS

(N = 206)

Girls
Boys
All Students

percentages

17
16
15
14
13
12
11
10
9
8
7
6
5
4
3
2
1

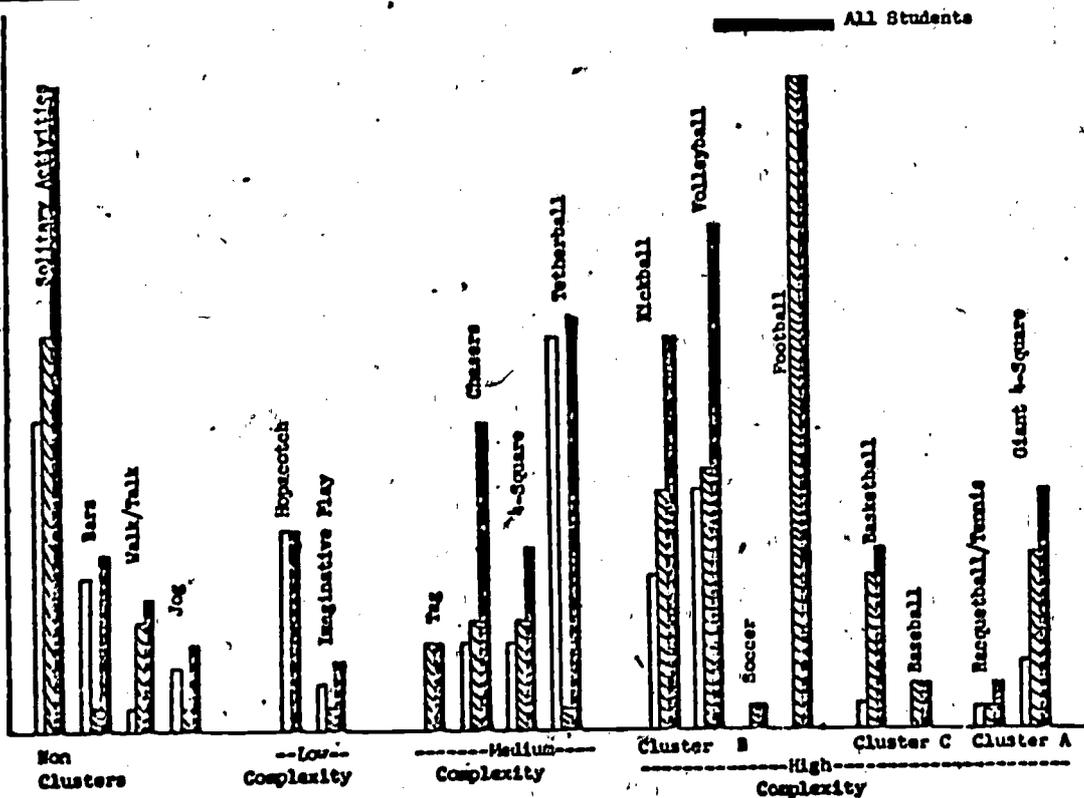


Table 4

Repeated Measures Analysis for Kickball Players'
Time Spent Preceding Game, Negotiating Game
and Playing Game.

<u>Source of Variation</u>	<u>SS</u>	<u>MS</u>	<u>df</u>	<u>F</u>	<u>P</u>
<u>Main Effects</u>					
Players	655991.97		7		
Time	2102829.1	1051515.6	2	13.76	<.01
<u>2-Way Interaction</u>					
Time x Players	1069488.2	76392.014	2.14	13.76	<.01

Table 5

Repeated Measures Analysis for Hopscotch
Players: Time Spent Preceding Game,
Negotiating Game and Playing Game

<u>Source of Variation</u>	<u>SS</u>	<u>MS</u>	<u>F</u>	<u>P</u>
<u>Main Effects</u>				
Players	13662.82			
Time	53280.223	26640.112	2	4.778 n.s.
<u>2-Way Interaction</u>				
Time x Players	22301.777	5575.44	2.4	4.778 n.s.

Table 6

Distractions Associated with Turns at Play
in Boys' versus Girls' Games

<u>Type of Distraction</u>	Boys	Girls	
Outside interference	16 11.70	12 16.20	28
Complaints, taunts, etc.	8 16.72	32 23.27	40
Abandoning the game	1 3.39	7 4.65	8
Changing the rules	13	21	34
	38	72	110

$\chi^2 = 18.93$

df = 3, critical value $\chi^2 = 7.815, 11.345$

p. .01

Table 7

Game Maintenance, Strategies Associated
With Turns at Play in Boys' versus Girls' Games

<u>Maintenance Strategy</u>	<u>Boys</u>	<u>Girls</u>	
Game monitoring with response	54 <u>59.70</u>	37 <u>51.29</u>	91
Game monitoring without response	67 <u>62.93</u>	50 <u>54.06</u>	117
Procedural question with response	19 <u>18.28</u>	15 <u>15.17</u>	34
Procedural question without response	6 <u>6.454</u>	6 <u>5.545</u>	12
Fetch equipment, etc.	3 <u>1.613</u>	0 <u>1.386</u>	3
	149	128	277

$x^2 = 4.46$

df = 4, critical value $x^2 = 9.488, 13.277$

p = n.s.