

COMMUNICATION GAMES AND SIMULATIONS

An Evaluation

by Brent D. Ruben

INTRODUCTION

Within the field of communication, as in so many others, the use of experiential methods of instruction has increased remarkably during the past decade. Many of the reasons are clear. For one thing, simulation games offer a means for the instructor or facilitator to immerse learners in a range of communication situations within the context of the classroom time and space can be telescoped and the risks and consequences of "winning" and "losing" controlled. And, beyond providing a common experience that learners can use as a basis for study, experience-based methods provide an opportunity to bridge the troublesome gap between theory and practice in fields where both are crucial.

An Historical Perspective

To understand fully the current state of gaming in communication, it is helpful to have some understanding of the recent history of instructional development in the field. The present popularity of experiential learning comes primarily from two influences, one theoretical and the other historical. Especially during the late 1950s and through the 1960s, a number of people in communication—as in a number of other fields—began to question the validity (or what was often termed "relevance") of communication education at all levels. Motivated both by an academic concern about what they sensed to be a widening gap between theory and practice and by a growing outcry for improved institutions of learning, a number of prominent communication scholars began a national dialogue on communication, mass communication, and speech communication that flourished through the mid-1970s. During this period of inquiry, John Dewey's *Education and Experience* and many of his other significant contributions were rediscovered. The work of others such as Jerome Bruner and Carl Rogers, too, had a significant impact on many concerned with communication instruction.

For those who became convinced that students—in and outside formal institutions—could be taught communication more effectively, and might further be helped to apply this learning to their own lives, experiential instructional techniques of all sorts seemed worth exploring.

A second influence came from various subdivisions of the discipline itself. Within speech, for example, even the very earliest efforts to teach public speaking and debate involved writing and delivering speeches and preparing for, and participation in, debates. Similarly, journalism students learned about photography, writing, and editing by performing the activities and having their work evaluated by an instructor or classmates. While the resemblance is seldom articulated, it is clear that many aspects of the philosophy underlying such methods were similar to that now undergirding the broadened contemporary interest in communication simulation and gaming. In a very real sense, writing or editing for a student newspaper, participating in debate competition, or delivering a speech to an audience composed of one's instructor and peers may be viewed as a simulation, the quality of which can be profitably evaluated with the same criteria that might apply to assessing other simulations.

Together, these two influences have led an increasing number of communication educators—particularly in speech and in interpersonal, group, organizational, and intercultural communication—to experiment with and refine methods of experiential instruction in communication.

Simulation gaming is used at virtually all educational levels of communication and in nearly all imaginable contexts, including the classroom, the management seminar, the community action group, the factory, and the overseas training program. Available games and exercises run the gamut from simple exercises that introduce learners to a single topic in a ten- to fifteen-minute activity to complex activities in which participants may spend up to a semester or a year in simulations of societal communication dynamics.

Our goal is to review a number of these simulation games and exercises and to provide a framework with which readers may better evaluate, compare, contrast, and select appropriate activities according to their instructional needs.

Selection Criteria

The nineteen activities we review fall into four categories that represent four major subdivisions of the communication field in which simulation and gaming are widely in use. These are:

Part I
EVALUATIVE ESSAYS

- (1) intrapersonal communication
- (2) interpersonal and group communication
- (3) organizational and mass communication
- (4) cross-cultural communication.

Within each area, we selected simulation games that in our view, are: (1) *significant* (focus on critical aspects of communication); (2) *valid* (are consistent with communication theory and research); (3) *reliable* (have a high probability of resulting in similar outcomes from one iteration to the next); (4) *flexible* (can be used with persons of diverse background, education, and experience); (5) *popular* (are generally well-recognized as important and useful); (6) *accessible* (are easy to construct or acquire); (7) *inexpensive* (can be produced with minimal purchase or duplication costs); and (8) do not duplicate activities reviewed in other articles here.

The Approach

Each of the four sections of this article focuses on a major subdivision within the field of communication. Each section is organized in two parts. The first, introductory, part briefly surveys that area of communication. The second part presents evaluative reviews of the selected games, simulations, and exercises. This part consists of a brief summary of the structure, dynamics, and requirements of each activity, with comments on particular advantages and limitations where these apply. The first table in each section rates the activities according to selection criteria. The second presents a summary comparison of the activities in terms of their primary topic, the number and level of participants, their relative complexity, the time needed to run and debrief them, the presence or absence of debriefing guidelines, and the level of facilitator background and preparation they require.

Communication: A Definition

What is communication? When is a simulation, game, or exercise about communication and when is it not? As with so many other fields in the social-behavioral sciences, there are no hard and fast boundaries. Communication as a discipline concerns human interaction, so in some sense nearly every simulation could be considered relevant for communication study.

However, for the purposes of this article, communication is considered to be that life process by which people symbolically relate themselves to one another and their environment. Thus, communication is fundamentally concerned with how people know and comprehend their world, and how and with what consequences they try to share their understanding with other people. The games we review in this article were designed to replicate some aspects of this basic life process in the classroom or workshop.

INTRAPERSONAL COMMUNICATION

The most basic facet of communication is that process through which an individual selects and interprets messages from his or her environment. This message-selection-interpretation is called *intrapersonal communication*. Intrapersonal communication concerns the way people sense, make sense of, and

act back upon their environment and the people in it. Accordingly, the focus of intrapersonal communication, and hence intrapersonal communication games, is not so much how people *communicate* to others as how people are *communicated-with* in their environment.

Four simulation exercises that concern aspects of intrapersonal communication are: *The Learning Game*, *The Memory Game*, *Zif*, and *Listening Triads*. All are quite simple to administer, and costs are nil or minimal; they can be used without purchasing commercially packaged kits.

The Learning Game

The Learning Game initially examines the process by which people perceive and learn to pattern their experiences. Subsequently, the activity explores the problem of changing one's intrapersonal framework once established. Game materials consist of a mimeographed booklet composed of four pages, each with the numbers 1 to 60 scattered about. On the first three pages, which are identical, the numbers are arranged so all odd numbers are at the top half of the page and even numbers at the bottom. Within these areas they are otherwise randomly distributed. On the fourth page, odd numbers are on the left and even on the right.

In forty-five-second intervals (timed by the instructor), participants, working with pencils in their individual booklets, connect the numbers, beginning with 1, drawing a line to 2, then to 3, and so forth, in a "dot-to-dot" manner. At the end of the fixed time the instructor records on a flip chart (or equivalent) the last number reached by each participant. Participants have another forty-five-second interval to connect the numbers on the second page of the booklet. Again, the last numbers reached are recorded. The instructor holds a brief discussion to reveal (to those who have not yet discovered it) that odd numbers are on the top and even on the bottom. Participants have another forty-five-second interval for connecting numbers, with completion scores recorded. Without further discussion, participants are told to turn to page four and repeat the process. Again, completion scores are recorded. The instructor can plot a curve on the flip chart for the group's average last number on each of the four trials.

Drawing on the data from the curve, debriefing focuses on the learning and patterning. During each of the first three trials, completion rates improved as the trial-and-error learning gave way to pattern perception and skill development. Communication patterns or habits, even when established with only several experiences, can easily become rigid and resistant to change. This is nicely demonstrated by the drop-off in completion rate when "change" is introduced in round four (though the change is only a slight, and systematic, variation).

The Learning Game deals in a simple way with a complex communication topic of far-reaching consequence in both theoretical and practical terms. Its structure is fairly simple, and outcomes are highly predictable. It can be used with virtually any number of participants of junior high through adult levels.

One advantage of the activity is that the instructor needs relatively little theoretical or practical experience to conduct

TABLE 1 Overview of Simulations Games

Game	Summary
<i>Intrapersonal Communication</i>	<i>Learning Game</i> A paper-pencil activity that demonstrates the dynamics of learning and the difficulty of changing patterns once learned.
	<i>Memory Game</i> An innovative game designed to demonstrate the role of past experience in perception, attention, memory, and recall.
	<i>Zit</i> A simple demonstration-game useful as a basis for exploring the nature of category formation and meaning processes.
	<i>Listening Triads</i> A popular game that demonstrates the difficulty and importance of listening and provides a context for improving listening skills.
<i>Interpersonal and Group Communication</i>	<i>Telephone</i> Telephone, or Rumor Clinic, simulates the dynamics that occur as messages are passed from one person to another, and another, and another.
	<i>One-Way Two-Way Feedback</i> A game designed to present the concept of feedback in communication and demonstrate the differences in outcomes between two-way interactions and interactions where the listeners are not active participants.
	<i>Cooperation Squares</i> A game that stresses the nature and importance of cooperation and cooperative behavior in group problem-solving situations.
	<i>Lost on the Moon (Consensus)</i> A simulation that creates the dynamics of group decision making, problem solving, and consensus seeking as individuals strive to integrate their individual views with opinions of other group members.
	<i>Prisoner's Dilemma</i> A game that explores the dynamics and outcomes of interaction between two groups who must choose between patterns of mutual trust and cooperation on the one hand, or distrust and competition on the other.
	<i>Power</i> An intriguing game in which participants enact their personal goals and feelings for other players on game board with play following few rules.
<i>Organizational and Mass Communication</i>	<i>Hollow Squares</i> A simulation game in which one group devises a plan for completion of a puzzle by a second group not involved in the planning, with a third group observing the entire dynamic.
	<i>Lock-A-Block</i> An organizational communication simulation game in which several competing groups endeavor to replicate a toy model following guidelines and winning criteria established by participants serving on a panel of judges.
	<i>Trio</i> A game stressing interviewing, writing, and evaluation skills.
	<i>Interact II</i> A minimally-structured simulation of interpersonal, organization, and mass communication processes in which groups produce communication products for distribution to, and evaluation by, other participants.
<i>Intercultural Communication</i>	<i>Survival</i> A game stressing the nature of culture, cultural development and evolution, and cross-cultural interaction, as participants deal with the problem of being survivors from a plane crash on an isolated island.
	<i>Agitania, Meditania, Solidania</i> A role-play simulation in which participants from different hypothetical cultures with different communication styles confront one another interpersonally.
	<i>Lobu-Abu</i> A simulation game stressing the role of language in cross-cultural adaptation as "Lobu-speaking" participants must interact with "Abu-speaking" participants.
	<i>Market Day</i> A simulation activity designed to create the dynamics of the market as found in most Third World countries by providing participant groups with varying levels of purchasing power.
	<i>Hypothetica</i> A simulation useful for exploring the nature and dynamics of development and underdevelopment, and the communication processes that occur as a group of participants from a hypothetical region of a hypothetical country try to exploit a newly discovered natural resource.

the activity. The major points are self-evident to participants, and post-play discussion will proceed in a lively manner with minimal facilitation. Exploration of the exercise's implications can be enhanced, however, if the instructor has some knowledge in areas such as pattern learning, perception, habit formation, and personal change.

With sophisticated audiences, the greatest strengths of *The Learning Game*—its simplicity and directness—may also be a weakness. The instructor can compensate for this by using the activity to launch a generalized discussion on learning and change, rather than as an end in itself.

TABLE 2 Intrapersonal Communication Simulation Games Overall Rating

	Selection Criteria						Cost
	Significance	Validity	Reliability	Flexibility	Popularity	Accessibility	
<i>Learning Game</i>	4	5	5	4	3	5	2r
<i>Memory Game</i>	5	4	4	4	1	1	2p
<i>Zif</i>	4	4	4	4	3	5	1n
<i>Listening Triads</i>	5	5	5	5	5	5	1n

Key High = 5, Moderately High = 4; Moderate = 3; Moderately Low = 2, Low = 1, n = no expenditure required, p = purchase required; r = reproduction required

The Memory Game

The Memory Game, like *The Learning Game*, concerns perception and habit formation, but in a more complex and holistic fashion. Game materials are miscellaneous household items that can be collected, borrowed, or purchased. The instructor assembles objects that symbolize a range of activities common to some or all participants. Some might have religious associations (like a rosary or dreidel), others vocational associations (like a book or tape measure), others might relate to hobbies (like guitar strings, a piece of leather, an art brush), and others to interest areas or habits (like a sugar cube,

cup and saucer, *Playboy* or *Playgirl* magazine, matches or cigarettes, plant mister). The objects are placed on a covered table in front of the room. People come up to the table in groups of five to seven. They are told that the table (which is still covered) has a number of items on it, and that when the table is uncovered they are look it over and try to notice and remember as many items as possible, so they can list them back at their seats. Each group (enough groups so all participants view the items) in turn has two minutes to look over the items before the table is recovered and participants are told to return to their seats and list as many items as they can.

After all lists are done, the instructor may initiate debriefing by asking participants to look their own lists over to determine whether there are any patterns. Because most persons perceive the task as simply as a test of memory, their attention is focused simply on trying to remember as many items as possible. Purposely, though, there are many more items that anyone can remember. Thus, in one way or another, each person selects some subset from the total possible range. Though participants may initially say that their selections were "unconscious," further discussion will suggest the importance of each person's life experience in determining what items were noticed and recalled. The rosary, for example, is most typically listed by someone who is either Catholic or well acquainted with the religion. That same person may not notice or recall the dreidel, a symbol that will most typically be remembered by a person of the Jewish faith. Each person's listing of items--and the groups' collective listing--provides the basis for an involved and personalized discussion of the role of

TABLE 3 Intrapersonal Communication Simulation Games Use Characteristics

	Primary Topic	Level (Kindergarten, Post Grad)	Number of Participants (No, Variable)	Basic Structure (Simple, Average, Complex)	Run Time (Minutes, Hours)	Debriefing Guide (Included or Not)	Debriefing Time (Minutes, Hours)	Theoretical Preparation (Critical, Useful, Not necessary)	Behavioral Simulation Facilitation Experience (Critical, Useful, Not necessary)
<i>The Learning Game</i>	learning, perception, change	8-PG	V	S	15m	I	30m	N	N
<i>The Memory Game</i>	memory, learning, perceptual patterning, experience	11-PG	5-25	A	30m	I	30m-1h	U	U
<i>Zif</i>	meaning, perception, category formation	10-PG	V	S	30m	I	30m	U	N
<i>Listening Triads</i>	listening, feedback, speaking	2-PG	V	S	30m	I	30m	U	U

experience and values in perceptual patterning and, more generally, of intrapersonal communication habit formation.

The game focuses on a subtle yet critical aspect of intrapersonal communication in a reasonably straightforward fashion. In a very general sense, outcomes of the game are highly predictable; the lists participants generate reflect their own life experiences and values. In another sense, outcomes vary considerably from one person or play of the game to the next as a function of the experiences and values of the persons involved.

Because of the relatively more complex nature of this game compared with *The Learning Game*, a bit more sophistication in debriefing behavioral simulations is required for most effective use, and some theoretical preparation in learning, socialization, or perception is probably desirable. Discussion also requires more time than *The Learning Game*.

Zif

Zif, like *The Learning Game*, can be used easily with any number of participants. The game focuses on meaning and the processes by which people evolve meaning for aspects of the environment. The exercise involves participants in trying to discover the meaning of "Zif," a label for a category of geometric forms. The only materials needed are a flip chart (or equivalent), paper, and pencils. On the flip chart the instructor draws between nine and twelve geometric forms, each of which has some structural characteristics in common with several or all of the others (for example: vertical lines, right angles, four corners, or three corners). The instructor has already selected one particular configuration (like a right angle or a vertical line with a left-branching appendage) that appears in some of the forms but not in others, and arbitrarily calls that "Zif." The task of participants is to discover the referent for the term. They may gather information from the instructor only by asking questions that can be answered with "yes" or "no."

Postplay discussion focuses on the "trial-and-error" process by which participants discovered the meaning of "Zif," relating this to learning and meaning-formation processes in "real-life" situations. The activity may also be used to focus on "unlearning" and change, in a manner like that used in *The Learning Game*, by repeating the process as the instructor selects a second configuration also defined as "Zif."

The major point of *Zif* comes through to participants with little facilitated discussion. Perhaps even more than with *The Learning Game*, extrapolation of the outcomes from the game situation to the "real world" is more readily accomplished if the instructor is familiar with theories of meaning and meaning formation, though this is probably not essential.

Outcomes of the game are quite predictable from one iteration to the next, participant involvement is quite high, and it can be used profitably with high school through adult participants. With modification, it would probably be suitable for younger audiences.

Listening Triads

Listening Triads deals with what is perhaps one of the most critical aspects of communication, and it does so in a simple,

straightforward format requiring no materials or dollar expenditure. Participants are grouped by threes. One person in each group is designated the speaker, the second the listener, and the third the judge. The speaker talks without interruption for a specified number of minutes (two to five) on a topic selected by the instructor (for instance, why he or she chose this job, major, or workshop; his or her major; his or her communication strengths, goals, or weaknesses, and so forth), while the listener and judge listen attentively. After the set time has elapsed, the listener summarizes in as much detail as possible what the speaker said. The judge may interrupt at any point if he or she believes the listener has made an error or has left out something important. After the summary and judge's evaluation, roles are exchanged. The listener becomes the judge, the judge the speaker, and the speaker the listener. After completion of this cycle, roles are exchanged a third time so each participant serves once in each role.

Discussion following the activity takes place at two levels. First, the members of the triad may be asked to recall and analyze their feelings and their performance among themselves. Second, the group as a whole may be asked to summarize the issues raised by the activity and its implication for other communication situations.

As with the other intrapersonal communication games, extensive theoretical knowledge or preparation is not required, though it can be useful. Probably of equal or greater importance for maximum impact of this exercise is some experience in conducting and debriefing behavioral games, because the success of this activity is, in part, contingent on creating an atmosphere in which participants can comfortably examine the strengths and weaknesses of their own listening and speaking behavior. For example, it is not uncommon for participants serving as the listener to become quite embarrassed when they discover how little they can recall of what a speaker said. In such instances, the instructor needs to encourage participants to confront and explore this reality seriously, but in a fashion that does not lead to depression, mistrust, or defensiveness, all of which may inhibit self-reflection and learning.

Outcomes of the activity are highly predictable, and it can be used profitably with second grade students through adults.

INTERPERSONAL AND GROUP COMMUNICATION

While intrapersonal communication is concerned with how people relate to their environment in general, interpersonal communication centers on how people relate to selected persons within the environment. Specifically, interpersonal communication deals with the dynamics by which relationships are initiated, developed, evolve and grow, or terminate. A good deal of the time people spend with others is in groups. Among the primary topics with which group communication deals are how groups operate; the nature and patterns of involvement and noninvolvement, participation, leadership, and group climate; the establishment of trust and cooperation; and the nature of power.

The six simulation games centering on interpersonal and group communication that we discuss and compare here are

TABLE 4 Interpersonal and Group Communication Simulation Games Overall Assessment

	Criteria						Cost
	Significance	Validity	Reliability	Flexibility	Popularity	Accessibility	
<i>Telephone (Rumor Clinic)</i>	4	4	5	4	4	5	1n
<i>One-Way Two-Way Feedback</i>	4	4	4	3	4	5	1n
<i>Cooperation Squares</i>	3	3	5	3	5	4	2r
<i>Lost on the Moon (Consensus)</i>	5	5	4	5	4	4	1r
<i>Prisoner's Dilemma</i>	5	4	4	3	4	4	1n
<i>Power</i>	5	5	4	2	1	3	3p

Key: High = 5; Moderately High = 4; Moderate = 3; Moderately Low = 2; Low = 1; p = purchase required; r = reproduction required; n = no expenditure required

Telephone (or Rumor), One-Way Two-Way Feedback, Cooperation Squares, Lost on the Moon (or Consensus), Prisoner's Dilemma, and Power. In general, these activities are more complex and have a wider range of potential outcomes than those reviewed in the previous section. As a result, they require more facilitator skill and preparation.

Telephone

Telephone (or Rumor, as it is often called) is simply an academic version of the age-old kids' game in which one person initiates a story and tells another, who tells another, who tells another, and so on. When running it as an instructional simulation, instead of having the first person make up a story, the instructor uses a controlled stimulus such as a film, picture, or paragraph. The stimulus is presented to the first individual for an appropriate period of time. Next, one at a time, four to six persons who were not exposed to the original stimulus are brought into the room to hear the description from the person who went before. In turn, each passes an account along to the next. Other participants observe the exchanges and make notes on what happens as the message is passed along. Videotaping the chain is also useful.

Postgame discussion focuses on the nature of rumor and, more generally, on the inevitable dynamic that occurs when information is transferred from person to person. Discussion guides suggest emphasizing how some facts get added, others subtracted, and others distorted. Finally, discussion centers on the implications of this process for everyday communication, stressing the merit of first-hand information, care in observing and describing an event, and so on.

This exercise has a number of advantages. It is simple to run, treats an important aspect of interpersonal communication, can be used with any number of participants, requires little instructor preparation, costs little or nothing, and has highly predictable outcomes. And, by varying stimulus material, the activity may be used with any level of participant.

One-Way Two-Way Feedback

One-Way Two-Way Feedback is also a popular game which, from a theoretical point of view, builds nicely on *Telephone*. It emphasizes the importance of feedback—checking out with a speaker one's perception of what one thought was said.

The exercise has two parts. During each, a participant (generally a volunteer) is given a drawing of several connected geometric shapes (a right triangle on top of a circle on top of a right-angled parallelogram, for example). The volunteer's task is to describe the drawing so the other participants (who cannot see the drawing) can reproduce it on their paper exactly as it is on the original sheet.

During part one, only "one-way" communication is allowed. The volunteer gives directions, but no questions, comments, or reactions—verbal or nonverbal—are permitted from the audience. During part two, a volunteer describes another geometric figure of comparable difficulty. This time, "two-way" communication is permitted. For each phase, the instructor records the amount of time required, the describer's estimate of the percentage of persons who correctly reproduced the figure, and the actual percentage who did so correctly. Discussion guides indicate that postplay discussion ought to focus on the differences—advantages and disadvantages—of "one-way" versus "two-way" communication in the game and in communication situations in general.

Predictably, the one-way phase takes less time, leads to grossly exaggerated estimates of correct responses by the describer, and is typically reported to be a highly satisfying experience by the describer. The two-way phase takes considerably longer, leads to overly conservative estimates of correct reproductions, many more correct reproductions, and is frequently a frustrating experience for the describer. Thus, the one-way phase is less time-consuming or more efficient, more satisfying to the describers, but less effective and leads to less accurate information transfer. The applicability of these propositions to a variety of different interpersonal situations becomes the final focal point for discussion in what is always an interesting and involving activity.

The game does not make great demands on the instructor in terms of ability to facilitate behavioral learning, but a minimal theoretical base is useful for extrapolating the game experience to broader spheres.

Cooperation Squares

Cooperation Squares is probably one of the most popular simulation games in group communication. It is designed to demonstrate the value of cooperation in group problem-solving, and it makes the point dramatically and unambiguously.

The game is played in groups of five persons seated around a table. Each receives an envelope containing cardboard pieces, and the group is told that the task is to construct five equal squares without talking. Because no one person has all the pieces needed to complete one square, the solution requires sharing and cooperation among group members.

Post-play discussion begins with an analysis of what happened and explores which strategies led to quickest comple-

tion of the five squares. Initially, the instructor explores with the group the fairly predictable tendency of participants to define the nature of the task as *individual* rather than *group*. Individuals often spend much time trying in vain to assemble a square with their own pieces and only after a considerable time explore the possibility that they could and should exchange pieces with others in the group.

Some skill at behavioral facilitation is useful in conducting *Cooperation Squares*, because conflicts that may require some debriefing sometimes develop during play. The instructor needs little theoretical background since the theme of cooperation and its importance in various activities is a familiar topic.

The materials for the game can be easily made in an hour or so, depending on the number of participants; with enough puzzle sets, up to forty persons (in groups of five) can participate. As with several games discussed so far, the major advantage may also be a liability in some circumstances. In this fairly straightforward lesson on the values of cooperation in group problem solving, there is some risk of oversimplification. Tasks are usually not finite, they may require skills and knowledge that are not equally distributed among group members, and cooperation is sometimes dysfunctional (as among members of the Watergate "team"). These issues however, can be discussed in debriefing.

Lost on the Moon

Lost on the Moon, which also focuses on group communication and decision-making, gives participants an opportunity to learn about the process individuals go through to reach group consensus on matters in which there may be substantial differences of opinion among individuals.

The game has two parts. Initially, participants receive a list of items to rank according to their assessment of the items' relative importance for survival on the Moon. (Other sorts of lists such as value statements on education, male-female relations, leadership, may also be used.) Next, participants come together and are given the task of arriving at a group consensus on the ranking of the items.

Discussion guides indicate that post-play discussion focuses on patterns of decision-making, comparing (either by "eye ball" or using mathematics) each initial individual's ranking with the final group ranking. A small discrepancy suggests either that the individual's preferences were coincidentally well matched with the group's or that the person was highly influential in decision-making. Discussion may also focus on roles played, group climate, leadership patterns, norms, levels of participation and involvement, at the instructor's discretion and as a function of the instructor's goals and the group dynamics that emerge.

Though the basic structure and operating dynamics are quite simple, the outcomes are both rich and varied. Data generated from even the most unimaginative iteration of the simulation are extremely useful for exploring many, if not most, of the critical components of group communication.

From both a behavioral and theoretical perspective, the game requires considerably more instructor skill than most of the games discussed so far. Essentially, the instructor must develop a debriefing strategy based on his or her own observations of the activity. Also, debriefing often requires theoretical and interpersonal skill in facilitating learning from conflicts that develop during the game.

The activity is exceptionally versatile. Items to be ranked may be easily varied according to the participant group's

TABLE 5 Interpersonal and Group Communication Simulation-Games Use Characteristics

	Primary Topic	Level (Kindergarten, Post Grad)	Number of Participants (No, Variables)	Basic Structure Simple, Average,	Run Time (Minutes, Hours)	Debriefing Guide (Included, Not)	Debriefing Time (Minutes, Hours)	Theoretical Preparation (Critical, Useful, Not necessary)	Behavioral Simulation Facilitation Experience (Critical, Useful, Not Necessary)
<i>Telephone (Rumor)</i>	Rumor, information transfer	K-PG	V	S	30m	I	15m	U	N
<i>One-Way Two-Way Feedback</i>	Feedback	2-PG	V	S	30m	I	15m	U	N
<i>Cooperation Squares</i>	Cooperation	8-PG	V groups of 5	A	30m	I	30m	N	U
<i>Lost on the Moon (Consensus)</i>	Group Decision-making	8-PG	V groups of 5-9	A	45m	I	45m	U	C
<i>Prisoner's Dilemma</i>	Trust	12-PG	V matched groups of 5-10	A	45m	I	30m	C	C
<i>Power</i>	Interpersonal power and motivation	12-PG	V groups of 5-10	A	1-8h	I	1-2h	C	C

interests, level, and previous experience. Beyond minimal reproduction, there are virtually no costs involved, preparation time is minimal, and time parameters may be varied subject to circumstances.

Prisoner's Dilemma

Prisoner's Dilemma deals with trust, cooperation and competition, and interpersonal and intergroup relations. The structure of the game is somewhat more complex than others discussed so far, and the outcomes may vary considerably from one iteration to the next, though certain themes surface with nearly every play.

The game requires that participants be divided into two groups, each of which is provided a separate room. With the goal of "winning as much as you can," game play consists of ten rounds in which each team decides between two alternative letters (A or B for one group, X or Y for the other) in an effort to win as many points as possible. Depending on the combination they select (see the payoff matrix), both teams may win points, one may win and the other lose, or both may lose. In each round, then, a team has a choice between selecting the letter that may lead to cooperation or one that further heightens the likelihood of competition.

TABLE 6 Payoff Matrix

Choices		Outcomes	
Team 1	Team 2	Team 1	Team 2
A	X	+3	+3
A	Y	-6	+6
B	X	+6	-6
B	Y	-3	-3

At two points in the game, representatives from each team may meet—at the discretion of the teams—to discuss mutual concerns. Scores are totaled for all ten rounds.

Discussion guides suggest focusing on the group's assessment of who won, the criteria being used to arrive at the judgment, what each team thought the other team's goal was, and so forth.

Typically, groups define the task as "beat the other team" rather than an alternative interpretation of "win as many points as you can." This precludes their seeing the goal as a cooperative one—both teams winning as many points as possible. This, of course, could be accomplished only if both groups adopted an "AX" strategy. The reasons groups did not select such a definition of the goal (where this is the case) leads predictably to a discussion of trust, cooperation, and competition—all crucial components in interpersonal, group, and intergroup relations.

A reasonable theoretical background and some preparation are useful for helping participants see the analogy between the game and such things as courtship behavior, communication between countries, the international arms race, and so on. This is particularly important since, as noted earlier, interaction patterns, participant responses, and overall outcomes may vary from one play to the next.

Predictably, different factions develop within at least one

of the groups. One subgroup often takes a highly competitive posture and another wants to initiate cooperation with the other group. Where these splits develop—and particularly where one faction asserts itself to the exclusion of the others—instructor skills in behavioral facilitation are useful, if not crucial. Helping participants see how their individual behaviors contributed to cooperative and competitive outcomes can be as important a part of debriefing as demonstrating in an intellectual fashion how trust, cooperation, and competition operate "in theory." For this reason, debriefing time for the game is extensive.

Getting the most out of the game not only requires a skilled instructor but reasonably bright and sophisticated participants, as well, in that many of the most important linkages to the "real world" are subtle and abstract. In all, *Prisoner's Dilemma* is potentially one of the richest simulations discussed so far in terms of both theoretical and personal learning; but outcomes are less predictable than some others and necessary facilitation skills are greater.

Power

Power is one of the most interesting simulation games in interpersonal and group communication. It is virtually unstructured, and for the most part the rules, roles, and outcomes emerge totally as a consequence of the motives, needs, actions, and reactions of participants.

The game was designed to explore the place of power and motives in interpersonal behavior. Basically, the activity is quite simple. Materials consist of a game board composed of colored squares dealt out and arranged like a checker board, with playing pieces that each participant fashions with cardboard, paper, pencil and scissors. Players going in turn may add as many pieces to the game board as they wish, anywhere they wish. During a turn a player may also move, remove, or destroy any or all of his or her own or the other players' pieces. Once a player has completed a turn, he or she may not alter the game board in any way until the next turn. The game ends only when all players have withdrawn from the game.

With these minimal ground rules, amazingly elaborate roles, rules, interaction patterns, norms, and confrontations emerge as players fashion and display an identity and negotiate with other players for psychological and physical space on the game board.

There is virtually no predictability in outcomes from one iteration of the game to the next. Often, participants become very involved emotionally with the game and the behavior of other participants—in a manner reminiscent of aspects of an encounter group. As a result, instructor skills in facilitating personal learning and interpersonal conflict are essential for satisfactory debriefing and meaningful use of the game. *Power* is not an appropriate game for indiscriminate use. Beneficial play requires reasonably serious-minded and intellectually sophisticated participants, not to mention an instructor with a high tolerance for ambiguity. As Table 5 notes, the time requirements for *Power* vary widely, as participants determine the length of the game. Generally, however, the game and debriefing require at least two or three hours.

ORGANIZATIONAL AND MASS COMMUNICATION

Organizational communication considers intrapersonal, interpersonal, and group communication phenomena as they operate in more complex environments. Information flow, work and social roles, and authority, status, and power relations are among the topics of central concern. Two simulation games *Hollow Squares* and *Lock-a-Block*--are discussed and compared in this section.

Mass communication similarly involves aspects of intrapersonal, interpersonal, and group, as well as organizational, communication. In its simplest forms, mass communication centers on the process by which an individual (or group or organization) designs, packages, and transmits messages for intended consumption by a large, heterogeneous, and anonymous audience. We review two games that focus on mass communication topics, *Interact II* and *Trio*.

Hollow Squares

Hollow Squares is an inexpensive, relatively flexible, and popular game that focuses on dimensions of intergroup supervision and coordination. The activity involves two task groups. The planning group has access to the information needed to complete a task, which is the assembly of a cardboard puzzle. A second group does not have this information and must rely in its efforts to construct the puzzle on instructions it receives from the planning group. A third group serves as observers, recording the events that transpire and later initiating discussion of the entire process.

Debriefing begins with a recounting of events, plans, and strategies by the observers, with comments and questions from members of the other two groups. Typically, members of each team make a number of unnecessary and limiting assumptions about the task, and these become the initial focus of discussion. Later discussion focuses on the relations that developed within and between groups, the planning process, authority relations and outcomes, theories and strategies for supervision, and so on.

TABLE 7 Organizational and Mass Communication Simulation-Games Overall Assessment

	Criteria						Cost
	Significance	Validity	Reliability	Flexibility	Popularity	Accessibility	
<i>Hollow Squares</i>	3	4	4	4	4	4	2r
<i>Lock-a-Block</i>	4	4	4	5	4	3	3p
<i>Trio</i>	3	4	4	5	2	3	1n
<i>Interact II</i>	4	4	4	3	2	3	3p

Key: High = 5; Moderately High = 4; Moderate = 3; Moderately Low = 2; Low = 1; p = purchase required, r = reproduction required; n = no expenditure required

Hollow Squares can be used with up to twenty-five persons from grade twelve through postgraduate level. Run time is one to two hours, with thirty minutes to one hour needed for debriefing. Little or no theoretical preparation is needed to use the game, and skill at behavioral facilitation is not necessary. Necessary materials can be assembled in an hour or so, depending on the number of participants.

Lock-a-Block

Lock-a-Block is a game with a reasonably simple structure that generates a great deal of enthusiasm among players while surfacing numerous critical communication issues.

Game materials are several sets of styrofoam blocks (or Lincoln Logs, Tinker Toys or Giant Tinker Toys, or other building materials). The instructor constructs a model or shape using about one-fifth of the blocks. Participants are divided into three to five groups of four to seven persons, and each group is assigned a different section of the room in which to carry out its activities. Participants are told that each group is to build a replica of the instructor's model with the unassembled blocks. Each group selects one person to serve as a judge. The judges (three to five, according to the number of groups) are told that they have three tasks: (1) make all rules by which group competition will proceed (for example, How many blocks can a group take at a time? How many persons may come up to look at the model at once?) (2) enforce all rules; and (3) select a winning group.

After the construction and judging phases are completed, debriefing begins. Discussion guides suggest that discussion may focus on the judges' leadership style and its effect on the various groups, the extent to which judges delegated authority to groups, the degree of division of labor within groups, relations between groups, participation within groups, leadership styles within groups, and so forth.

Though the outcomes of the game vary somewhat from one play to the next, depending on the posture of the judges and the sorts of rules, enforcement procedures, and winning criteria they select, the patterns of interaction are quite predictable. Characteristically, judges take little account of the needs of the groups who selected them as they develop rules. The power often goes to their heads, and when this occurs some resentment by group members generally follows. This often leads to very fruitful discussions of communication in power and authority relationships.

Lock-A-Block can be most effectively used with up to thirty persons from high school through postgraduate level. The activity is of average complexity, requires about fifteen minutes to set up, forty-five minutes to one and one-half hours to play, and thirty minutes to one hour to debrief.

Theoretical preparation in the areas of intergroup relations, organizational dynamics, or group and organizational communication is useful, as is some degree of skill in behavioral facilitation. The latter is particularly important for helping participants explore the nature and effects of their own behavior within the group activity.

Trio

Trio is a mass communication exercise that involves interviewing, writing, and being an audience. It is very similar in structure to *Listening Triads* but uses a written rather than spoken mode of interaction. Participants are grouped by threes. Each triad member in turn interviews each of the other two. The interview focuses on gathering biographical data, which forms the basis for short biographical sketches. After the interviews and biographies are completed, they are distributed to the persons about whom they were written. Each of the three persons selects from the two biographies the one that is most accurate and appealing and gives both authors written or oral feedback. Discussion after the exercise concerns interviewing theory and practice, including the relation between the sorts of questions one asks of the types of answers that result, alternate question-asking techniques, and so forth. The exercise also provides a basis for exploring dimensions of audience reaction, specifically, what factors led to the selection of some biographies and the rejection of others, and what is the relative importance of "content" compared with style.

The activity can be used most effectively with high school or undergraduate university students. It requires no preparation time, takes about two hours to play and thirty minutes to one hour to debrief. Theoretical preparation in the topics and skills the exercise addresses is useful, but no behavioral facilitation skills are necessary.

Interact II

Interact II was developed by the author. The assessments herein are based on comments by Fredric Powell, Department of Speech Communication, State University of New York, Brockport. *Interact* is a complex simulation game that focuses on mass communication along with interpersonal, group, and

organizational dynamics. Participants are organized in five to fifteen groups of five to ten persons each. During the game which may last from one to two semesters each group prepares, produces, and distributes a series of communication broadcasts or publications on predetermined topics.

On specified dates, the products are "aired" or distributed to all other participants, who serve as members of the audience and evaluate the products by assigning points and providing narrative feedback. Evaluation points are totaled and given in bulk to the producing group, which may divide them among its members as they deem appropriate.

Interact II makes a provision for participants to "quit" their mass communication company and work for another, start their own company, or work with the Executive Council (which governs the entire simulation).

Much of the debriefing for *Interact II* occurs in tandem with play as participants work through the various problems of organizing a group of individuals to produce a product that will appeal to its audience. Because of the duration and intensity of the simulation, behavioral facilitation skills are crucial to its effective use. Helping participants analyze and see personal relevance in the various experiences and problems they and their groups encounter is both critical and often difficult to accomplish because of the complexity and multiplicity of the dynamics that occur. Theoretical background in various aspects of communication is useful to the facilitation process though perhaps less critical than for other complex simulation games, in that the parallels between the *Interact II* dynamics and those of the "real world" are quite apparent to participants. Debriefing effectiveness hinges on the instructor's ability to help participants "understand" and deal with the dynamics in a personally illuminating, productive, and transferable manner.

Interact II is best suited to university-level participants. It

TABLE 8 Organizational and Mass Communication Simulations-Games Use Characteristics

	Primary Topic	Level (Kindergarten Post Grad)	Number of Participants (No., Variable)	Basic Structure (Simple, Average, Complex)	Run Time (Minutes, Hours)	Debriefing Time (Minutes, Hours)	Debriefing Guide (Included, Not)	Theoretical Preparation (Critical, Useful, Not necessary)	Behavioral Simulation Facilitation Experience (Critical, Useful, Not necessary)
<i>Hollow Squares</i>	intra and inter-group interaction	12-PG	V to 25	A-C	1-2h	30m-1h	I	N	U
<i>Lock-a-Block</i>	intergroup coordination	12-PG	V to 30	A	45m-1/2h	30m-1h	I	U	U
<i>Trio</i>	interviewing	10-G	V groups or 3	S	1h	1h	I	U	N
<i>Interact II</i>	intergroup, intraorganizational and mass communication	12-G	V	C	4h to several semesters	Variable	N	C	C

can be used as a course unto itself or in conjunction with other courses for some portion of a semester, with as many as 150 participants.

INTERCULTURAL COMMUNICATION

Intercultural communication is an increasingly popular area. Work in this area focuses on the communication dynamics that occur during interaction between two or more persons with differing cultural (or subcultural) backgrounds. Five intercultural communication simulation games that deal with facets of intercultural communication are reviewed in this section. They are *Survival*; *Agitania*, *Meditania*, *Solidania*; *Lobu-Abu*; *Market Day*; and *Hypothetica*.

TABLE 9 Intercultural Communications
Simulations-Games Overall Assessment

	Criteria						Cost
	Significance	Validity	Reliability	Flexibility	Popularity	Accessibility	
<i>Survival</i>	5	4	4	4	2	2	1n
<i>Agitania, Meditania, Solidania</i>	5	4	4	5	3	2	1n
<i>Lobu-Abu</i>	5	4	4	5	2	3	2r
<i>Market Day</i>	3	4	5	5	1	2	3p
<i>Hypothetica</i>	5	5	4	5	2	3	2r

Key: High = 5; Moderately High = 4; Moderate = 3; Moderately Low = 2; Low = 1; p = purchase required; r = reproduction required; n = no expenditure required

Survival

Survival is a simulation game designed to increase participant awareness of the nature of culture and the process by which culture develops and evolves. It casts participants in the roles of survivors of an airliner crash on an isolated and uninhabited island, where they learn they are destined to remain for many years. Their initial task is to devise a plan of action—what needs to be done and who will do it. At various times, the instructor enters the room in which the “survivors” are located and asks questions that require the group to examine the probable evolution of the newly formed society six months, one year, and five years hence. In this way the group can be guided toward considering such topics as orientation to work, time, sexuality, religion, ethics, law, gender roles, and so on, as it defines what the ideal culture might be.

Some inevitable extrapolation occurs as participants respond to the experience—which is initially rather ambiguous—and speculate about how the culture might evolve. Discussion at the completion of the game is directed toward exploring specific cultural dimensions of the sort listed previously.

Survival generates particular interest and enthusiasm when used with groups (of five to fifteen members) of serious high school through postgraduate-level participants who have some degree of tolerance for ambiguity. The game structure is rela-

tively simple and depends for its outcomes on the interest and involvement of participants. The activity requires from one and one-half to four hours to play, with thirty minutes to one hour for debriefing. Neither theoretical preparation nor behavioral facilitation skills are needed.

Agitania, Meditania, Solidania

Agitania, Meditania, Solidania is an enjoyable and informative role-play game in which participants assume roles as members of one of three cultural groups, each with its own distinctive cultural communication characteristics. Through interaction with members of the “other cultures,” participants gain some experience in the problems and challenges encountered cross-culturally regarding such differences as orientation to time, physical contact, money, work, or greetings. At the same time, the game sensitizes participants to some crucial dimensions of cross-cultural communication, and through discussion raises questions about stereotyping and its effects.

The role-play can be used most effectively with fifteen to forty-five participants of high school through university level. Time required for play is one to two hours, with thirty minutes to one hour for debriefing. Theoretical preparation in the area of intercultural relations is critical for most effective use of this game, but facilitation skills are not needed.

Lobu Abu

Lobu-Abu also splits participants into two cultural groups, but unlike *Agitania, Meditania, Solidania* it emphasizes language and language differences across cultures. One culture speaks Lobu, the other Abu.

A list of English words and their Abu equivalents is given to the Abu speakers. The Lobu speakers get a list of the same words with their Lobu equivalents. Each member of the Abu-speaking group is paired with a member of the Lobu-speaking group. Everyone becomes highly involved in attempting in turn, to get their counterparts to perform a simple task (from a list provided by the instructor) with instructions given only in the speaker’s “native” language. Getting one’s meaning across in Lobu to an Abu-speaking person can be reasonably complex. In a simple way, the game provides participants some first-hand experience in the problems of interacting with someone who does not share one’s language. The game and subsequent discussion also sensitizes participants to the importance of nonverbal communication in intercultural information exchange and, more generally, highlights aspects of the language-learning process.

The activity is highly motivating for participants and can be used with junior high through university-level participants. It requires about one to one and one-half hours to play and thirty minutes to one hour to debrief.

Market Day

Market Day is a simulation game intended to recreate the economic and social conditions of markets as they exist in many areas of the world. The game establishes an economic order and involves participants in bargaining and negotiating for food and services.

The design of the simulation is straightforward. Various tropical fruits, vegetables, drink, and other foods are procured, and booths are set up and operated by instructors or their confederates. Other confederates serve as beggars, pickpockets, magicians, and other roles characteristic of a marketplace population. Participants are given colored chips that represent varying levels of income. Some are given enough chips to be, in effect, a wealthy class; they can buy all the food they want. Others are given the number of chips appropriate to a "middle class." A third group is forced into a "poverty" role, since they receive few chips and can buy little at the marketplace.

As participants move from booth to booth, they are confronted by the "reality" of their own economic positions and the discrepancies between their own condition and the apparent affluence or poverty of others. A wide range of potential behavior and feelings may result, including helplessness, resentment, superiority, hostility, begging, charity, donations of "conscience money," bargaining, negotiating, robbery, and so forth.

Postplay discussion focuses on these and other attitudes and behavior on the market itself, and on markets as they operate around the world.

The game can be used, with highly predictable outcomes, with persons of all ages and will easily accommodate up to seventy-five or eighty participants. It requires no behavioral facilitation skill, though some theoretical base in economic development and its cultural implications is certainly an asset.

Hypothetica

Hypothetica focuses on economic and cultural development from a communication perspective. The simulation places participants in one of several regional groups in an imaginary

Third World nation. As the game opens, participants learn that valuable resources have just been discovered in one of the regions and that the national assembly (composed of representatives from each region) must decide whether and how the country should exploit the find.

For the region in which the resources are located, the decision is usually quite clear, as it is for the group that inhabits the coastal region from which shipping will take place. Both groups see immediate benefits. Persons in the other regions often see potential problems that may accompany economic development, and these issues become the core of the valuable dialogue between regional representatives.

An advantage of the game is its flexibility. Game material can be adapted to highly sophisticated participants or used with participants totally unfamiliar with communication and development issues. The game consistently generates enthusiasm and involvement and often leads to challenging discussions of the pluses and minuses of "progress," "growth," "development," and "advancement." For the instructor, particular knowledge of development is crucial for getting the most from postplay discussion, as is some ability to facilitate learning in situations where heated conflicts may surface.

Hypothetica can be used with up to thirty or forty university through postgraduate participants. Time requirements vary as a function of participant actions, though two to three hours is generally a minimum.

Sources for Additional Information on Simulation Games in Communication

In the previous pages we have discussed a number of games in the categories of intrapersonal, interpersonal and group, organizational and mass, and intercultural communication.

TABLE 10 Intercultural Communication Simulations-Games Use Characteristics

	Primary Topic	Level (Kindergarten-Post Grad)	Number of Participants (No., Variable)	Basic Structure (Simple, Average, Complex)	Run Time (Minutes, Hours)	Debriefing Time (Minutes, Hours)	Debriefing Guide (Included, Not)	Theoretical Preparation (Critical, Useful, Not necessary)	Behavioral Simulation Facilitation Experience
<i>Survival</i>	cultural development, evolution and interaction	12-PG	5-15	A	1 1/2-2h	30m-	I	N	U
<i>Agitania, Meditania, Solidania</i>	cross-cultural differences and stereotyping	12-G	15-45	A	1-2h	30m-1h	I	C	N
<i>Logu-Abu Market Day</i>	cross-cultural adaptation and language learning	10-G	V groups of 2	A	1-1 1/2h	30m	I	V	N
<i>Market Day</i>	economic and cultural differences	K-PG	V	C	2-4h	15m-1h	I	V	U
<i>Hypothetica</i>	development and social action	12-PG	10-60	C	1h-	1-2h	I	V	U

Obviously, these are only some of the many simulations, games, and structured exercises available within these areas. Because of length considerations, we could give only thumbnail sketches of the actual structure, rules, procedures, and outcomes of these games. Table 11, however, lists sources of further information about each game. Where the game is available from more than one source, each is listed. These sources provide detailed descriptions of game materials, guides for postplay discussion, and, in many cases useful suggestions for variations of the activities.

**TABLE 11 Intrapersonal Communication
Simulation/Game Sources**

<i>Learning Game</i>	<p>1. <i>Human Communication Handbook: Simulations and Games</i>, page 41 B. D. Ruben & R. W. Budd Hayden Book Company 50 Essex Street Rochelle Park, NJ 07669 \$6.95</p> <p>2. <i>1978 Annual Handbook for Group Facilitators</i>, page 9 J. E. Jones & J. W. Pfeiffer University Associates Press 7596 Eads Avenue La Jolla, CA 92037 paperbound, \$12.50, looseleaf notebook \$29.50</p>
<i>Memory Game</i>	<p>1. <i>Human Communication Handbook: Simulations and Games, Volume 2</i>, page 50 B. D. Ruben Hayden Book Company 50 Essex Street Rochelle Park, NJ 07669 \$8.95</p>
<i>Zif</i>	<p>1. <i>Human Communication Handbook: Simulations and Games, Volume 2</i>, page 56 B. D. Ruben Hayden Book Company 50 Essex Street Rochelle Park, NJ 07662 \$8.95</p>
<i>Listening Triads</i>	<p>1. <i>The Dynamics of Human Communication: A Laboratory Approach</i>, page 199 G. E. Meyers and M. T. Meyers McGraw-Hill Book Company Princeton Road Hightstown, NJ 08520 \$9.50</p> <p>2. <i>A Handbook of Structured Experiences for Human Relations Training, Volume 1</i>, page 12 J. E. Jones and J. W. Pfeiffer University Associates Press 7596 Eads Avenue La Jolla, CA 92037 \$6.00</p>
<i>One-Way Two-Way Feedback</i>	<p>1. <i>Managerial Psychology</i> H. J. Leavitt University of Chicago Press 5801 Ellis Avenue Chicago, IL 60637 \$9.95</p>

**TABLE 11 Intrapersonal Communication
Simulation/Game Sources (Cont)**

	<p>2. <i>A Handbook of Structured Experiences for Human Relations Training, Volume 1</i>, page 13 J. E. Jones and J. W. Pfeiffer University Associates Press 7596 Eads Avenue La Jolla, CA 92037 \$6.00</p>
<i>Cooperation Squares</i>	<p>1. <i>Ten Interaction Exercises for the Classroom</i> D. J. Mial and S. Jacobson National Training Labs Washington DC Original Source NA</p> <p>2. <i>Communication Games</i>, page 109 K. R. Krupar Free Press % The Macmillan Co. 866 Third Avenue New York, NY 10022 \$3.95</p> <p>3. <i>Human Communication Handbook: Simulations and Games</i>, page 74 B. D. Ruben and R. W. Budd Hayden Book Company 50 Essex Street Rochelle Park, NJ \$6.95</p> <p>4. <i>A Handbook of Structured Experiences for Human Relations Training, Volume 1</i>, page 25 J. W. Pfeiffer and J. E. Jones University Associates Press 7596 Eads Avenue La Jolla, CA 92037 \$6.00</p> <p>5. <i>The Dynamics of Human Communication: A Laboratory Approach</i>, page 361 G. E. Meyers and M. T. Meyers McGraw-Hill Book Co. Princeton Road Hightstown, NJ 08520 \$9.50</p>
<i>Prisoner's Dilemma</i>	<p>1. <i>A Handbook of Structured Experiences for Human Relations Training, Volume 3</i>, page 52 J. W. Pfeiffer and J. E. Jones University Associates Press 7596 Eads Avenue La Jolla, CA 92037 \$6.00</p> <p>2. <i>Human Communication Handbook: Simulations and Games</i>, page 76 B. D. Ruben and R. W. Budd Hayden Book Company 50 Essex Street Rochelle Park, NJ 07669 \$6.95</p> <p>3. "Trust" J. Boulogne 13965-64 Avenue Surrey, BC, Canada V3W 1Y7 \$8.75</p>

**TABLE 11 Intrapersonal Communication
Simulation/Game Sources (Cont)**

	4. <i>A Handbook of Structured Experiences for Human Relations Training, Volume 2</i> , page 62 J. W. Pfeiffer and J. E. Jones University Associates Press 7596 Eads Avenue La Jolla, CA 92037 \$6.00
<i>Prisoner's Dilemma (Cont)</i>	5. <i>The Dynamics of Human Communication: A Laboratory Approach</i> , page 351 G. E. Meyers and M. T. Myers McGraw-Hill Book Company Princeton Road Hightstown, NJ 08520 \$9.50
<i>Power</i>	1. <i>Great Game and Symbol Company</i> A. Amberstone and W. Amberstone Westminster Road Brooklyn, NY NA 2. <i>Human Communication Handbook: Simulations and Games</i> , page 113 B. D. Ruben and R. W. Budd Hayden Book Company 50 Essex Street Rochelle Park, NJ \$6.95
<i>Telephone</i>	1. <i>Nothing Never Happens: Exercises to Trigger Group Discussions</i> , page 67 K. G. Johnson, J. J. Senatore, M. C. Liebig, and G. Minor Glencoe Press 17337 Ventura Blvd. Encino, CA 91316 \$10.95 2. <i>Human Communication Handbook: Simulations and Games</i> , page 62 B. D. Ruben Hayden Book Company 50 Essex Street Rochelle Park, NJ \$6.95 3. <i>A Handbook of Structured Experiences for Human Relations Training, Volume 2</i> , page 14 J. W. Pfeiffer and J. E. Jones University Associates Press 7596 Eads Avenue La Jolla, CA 92037 \$6.00
<i>Lost on the Moon-Consensus</i>	1. <i>The Dynamics of Human Communication: A Laboratory Approach</i> , page 334 G. E. Myers and M. T. Myers McGraw-Hill Book Company Princeton Road Hightstown, NJ 08520 \$9.50 2. <i>Nothing Never Happens: Exercises to Trigger Group Discussions</i> , page 57 K. G. Johnson, J. J. Senatore, M. C. Liebig, and G. Minor Glencoe Press 17337 Ventura Blvd.

**TABLE 11 Intrapersonal Communication
Simulation/Game Sources (Cont)**

	Encino, CA 91316 \$10.95 3. <i>Human Communication Handbook: Simulations and Games</i> , page 82 B. D. Ruben and R. W. Budd Hayden Book Company 50 Essex Street Rochelle Park, NJ \$6.95
<i>Lost on the Moon-Consensus (Cont)</i>	4. <i>Human Communication Handbook: Simulations and Games, Volume 2</i> , page 87 B. D. Ruben Hayden Book Company 50 Essex Street Rochelle Park, NJ \$8.95 5. <i>A Handbook of Structured Experiences for Human Relations Training, Volume 4</i> , page 51 J. W. Pfeiffer and J. E. Jones University Associates Press 7596 Eads Avenue La Jolla, CA 92037 \$6.00
<i>Ho-low Square</i>	1. <i>A Handbook of Structured Experiences for Human Relations Training, Volume 2</i> , page 32 J. W. Pfeiffer and J. E. Jones University Associates Press 7596 Eads Avenue La Jolla, CA 92037 \$6.00 2. <i>Human Communication Handbook: Simulations and Games</i> , page 97 B. D. Ruben and R. W. Budd Hayden Book Company 50 Essex Street Rochelle Park, NJ \$6.95
<i>Lock-A-Block</i>	1. <i>Human Communication Handbook: Simulations and Games</i> , page 95 B. D. Ruben and R. W. Budd Hayden Book Company 50 Essex Street Rochelle Park, NJ \$6.95
<i>Tric</i>	1. <i>Symposium on Simulations for Communication Education</i> A. D. Talbott and M. S. MacLean Jr. School of Journalism University of Iowa Iowa City, IA NA 2. <i>Human Communication Handbook: Simulations and Games, Volume 2</i> Brent D. Ruben Hayden Book Company 50 Essex Street Rochelle Park, NJ \$8.95

**TABLE 11 Intrapersonal Communication
Simulation/Game Sources (Cont)**

<i>Interact II</i>	<p>1. <i>Interact II</i> B. D. Ruben Avery Publishing Group 89 Baldwin Terrace Wayne, NJ \$5.95</p>
<i>Survival</i>	<p>1. Pri Notowidigdo Briefing Center Canadian International Development Agency 200 Rue Principal Hull, Quebec, Canada NA</p> <p>2. <i>Human Communication Handbook: Simulations and Games, Volume 2</i>, page 103 B. D. Ruben Hayden Book Company 50 Essex Street Rochelle Park, NJ 07662 \$8.95</p> <p>3. <i>Fig Leaf</i> D. Bensen Parthenon Publishing Company 2628 Old Lebanon Road Nashville, TN 37214 \$5.95</p>
<i>Agitania, Meditania, Solidania</i>	<p>1. <i>Human Communication Handbook: Simulations and Games</i>, page 117 B. D. Ruben and R. W. Budd Hayden Book Company 50 Essex Street Rochelle Park, NJ 07662 \$6.95</p>
<i>Lobu-Abu</i>	<p>1. <i>Human Communication Handbook: Simulations and Games, Volume 2</i>, page 141 B. D. Ruben and R. W. Budd Hayden Book Company 50 Essex Street Rochelle Park, NJ 07662 \$8.95</p>
<i>Market Day</i>	<p>1. <i>Human Communication Handbook: Simulations and Games, Volume 2</i>, page 130 B. D. Ruben Hayden Book Company 50 Essex Street Rochelle Park, NJ 07662 \$8.95</p>
<i>Hypothetica</i>	<p>1. <i>Human Communication Handbook: Simulations and Games</i>, page 121 B. D. Ruben and R. W. Budd Hayden Book Company 50 Essex Street Rochelle Park, NJ 07662 \$6.95</p>