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By-Demak, Leonard S.; Dworkin, Leo
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Student Participation

Simulation is another item in the teacher's bag of instructional tools. It is essentially a motivational device and must not be confused with role-playing. In simulation the individual plays himself in a situation, whereas in role-playing he performs what he interprets to be the demands of the role. There are many criticisms of the use of simulations and games, the most common being that they may distort reality, and that they may simulate experiences which society demands that the individual shall keep away from in real life. An all-embracing answer that is offered against these criticisms is that they do not apply if the games and simulations are designed with skill and with good sense. Included in this report is a section entitled "Design Your Own" which tabulates the steps necessary in the design of a game. Included also is the agenda for the consortium which took place on May 27-28, 1968 at Madonna College, Michigan. A participation list and some of the games and simulations used, as well as a bibliography, are provided. (GO)

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Games & Simulation

EM007373

an approach to meaning through participation

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

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IDEAS IN MOTION

Games and Simulations:

An Approach to Meaning through Participation

Leonard S. Demak
Leo Dworkin

May 1969

Consortium of Advanced Educational Thinking
Leo Dworkin, Coordinator

Wayne County Intermediate School District
Detroit, Michigan 48226

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Introduction

A program on games and simulations jointly sponsored by Wayne County's Consortium of Advanced Educational Thinking, Project REMIDY, ASSIST and Madonna College in May of 1968, focused on

1. Helping educators gain increasing understanding of the implications of games and simulations for education.
2. Exploration of the theory and conceptual framework of games and simulations.
3. Opportunities to experience the meaning of games and simulations.
4. Participation in the development of promising practices and ideas for the improvement of education.

Why An Interest in Games and Simulations?

Improving the process of education is an unfinished business. There is much yet to be accomplished. Some young people tell us that "education turns us off," that school bears little relationship to reality—that the process and content are not "relevant."

Our schools continue to bear responsibilities for the healthy development of individuals and for the ways individuals play their roles in our society. For as long as our schools have these functions, educators must continue the search for the processes to help education come alive for all our youth.

There is increasing evidence that one of the most promising practices capable of "turning on" youth is the concept of games and simulations. They can help educators engage the interests of youth and help with the continuing problem of motivation.

In game-playing, groups of students encounter conceptual learning within realistic problem-solving situations. Games are scored according to realistic criteria. Many users of games have reported improved student motivation and involvement; more relaxed atmospheres in classrooms; and, increased skills in decision-making, communication and influence-resisting.

In commenting on simulation games, James S. Coleman has said the game, "allows a boy or girl to act through situations before he faces them in real life, to see indirect and long-range consequences of choices he may make before it is too late and he must face consequences in real life."

Simulation shows the essence of what might happen in real life. It can be used to:

- present information
- elicit responses or provide a situation for practice
- assess performance

Simulations, while they do not contain all of reality, contain the most important parts of it. They also provide opportunities for improved total student involvement in learning. The affective and cognitive dimensions of learning are not treated separately, so children can get more totally involved.

In some ways, simulations may seem to be sophisticated versions of case study techniques. They are certainly related to role-playing. However, there is an important distinction. In simulation the individual plays himself in a situation. In role-playing, the person is supposed to do what he thinks the role dictates.

Users and creators of simulations need to be alert to a number of criticisms of their use. Some children may be asked, in effect, to

simulate an experience that the general society virtually precludes them from experiencing in real life. In an excellent pamphlet *Simulation Games for the Social Studies Classroom* published by the Foreign Policy Association, other limitations of games have been identified. It has been claimed that games may tend to "dehumanize students by allowing them to maneuver the lives of others without, at the same time, subjecting them to a system of constraints similar to that which exists in the real world."

Others wonder about the impact on children of playing games where the measure of success is the amount of money or political power gained through game strategies. The view of reality in some games has been criticized as distorted and that "naive misconceptions" are developed. However, most criticisms can be negated by good game design and wise use.

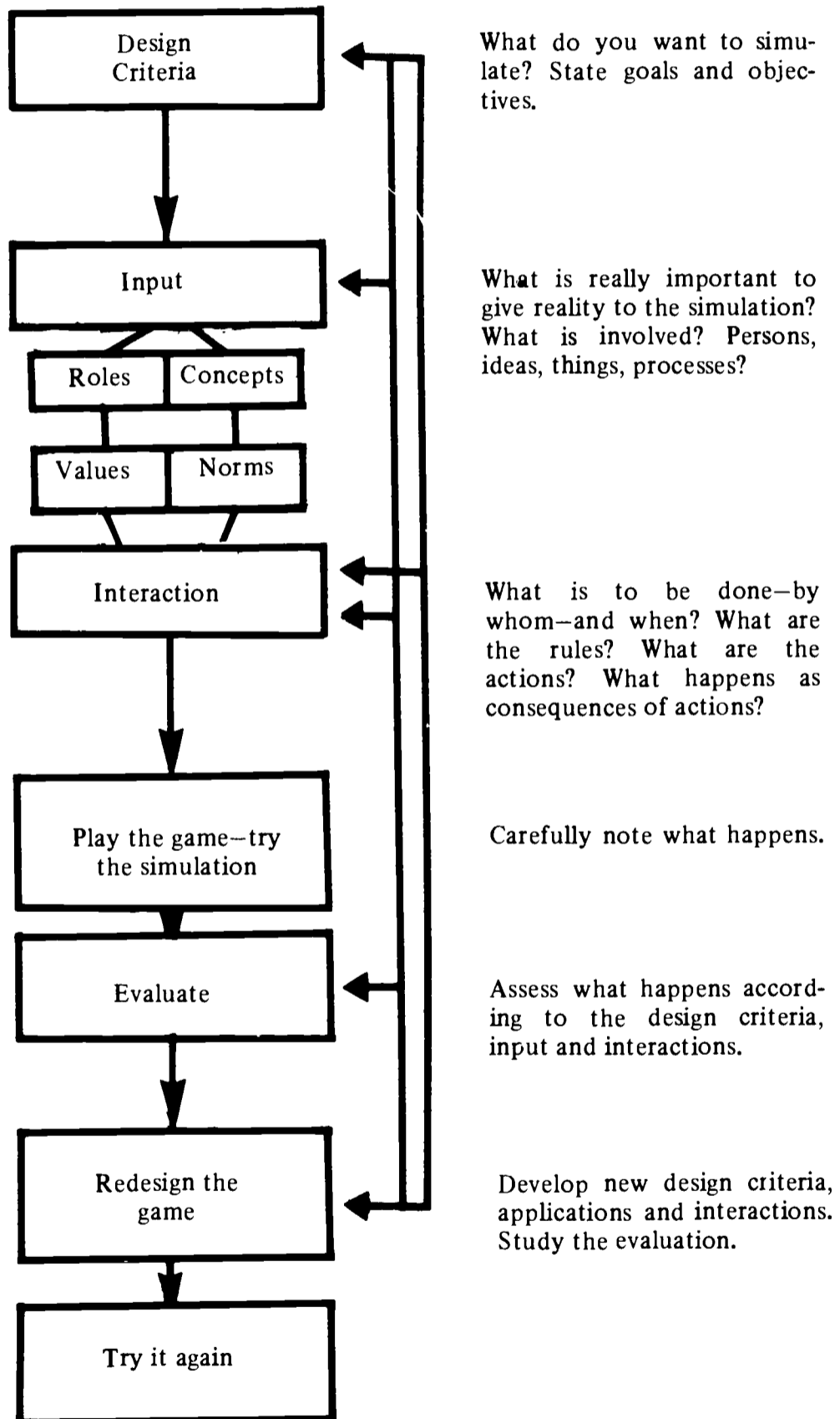
Although not enough games are available now, more and more are being developed commercially. However, educators are encouraged to develop their own games and simulations. The process of developing them can be as exciting and as productive as playing the game itself.

For the teacher who is looking for techniques which will help him move away from complete domination of the classroom, games and simulations are very useful. They call for new roles for students and teachers.

It is not proposed that these techniques take over for all of the other important tools in the educator's bag. It is suggested that games and simulations are an important motivational device that have their place with other methods.

It is suggested that only after playing—or even better—designing games, does one get an appreciation of the power and potential inherent in the use of games and simulations.

DESIGN YOUR OWN



**CONSORTIUM NO. 5
GAMES AND SIMULATION:**

An Approach to Meaning Through Participation

May 27-28, 1968

Madonna College - 36600 Schoolcraft, Livonia, Michigan

Wayne County Intermediate School District

Co-sponsored by the:

- Consortium of Advanced Educational Thinking
Project RFMIDY
- Project ASSIST
- and Madonna College

Focus: Practice and Theory

Coffee and registration
Sister Mary Martinez, Madonna College

Introduction and Orientation
Leo Dworkin, Consortium Coordinator, Wayne County Intermediate School District

Games and Simulation: An Approach to Meaning Through Participation
Resource persons: Audrey Suhr, Field Director, Carnegie Project for Study of Social Organization of Schools, John Hopkins University, Linda Elbow, Field Representative, Apt Associates, Inc.

Reflections and Reactions
Dr. E. J. McClendon, Consultant, Wayne County Intermediate School District

Simulation and Non-Simulation: A Demonstration and Comparison
Resource person: Dr. Layman Allen, Law School, University of Michigan

Discussion and Questions
Sam Mangione, Director, ASSIST Center, Wayne County Intermediate School District

Reality, Creativity and Participation: "The Tuned in Dimensions"
Resource persons: Dr. Cleo Cherryholmes, Assistant Professor, Political Science, Michigan State University; Mr. Stephen Bornstein, Associate Director, Apt Associates, Inc.

An Experience in the Design of Games
Resource Persons: Dr. Cherryholmes and Mr. Bornstein

Group Reports and Reactions
Sister Mary Martinez

Focus: Theory

Games and Simulation: The Status of the Field

1. What do we now know?
2. What are the implications for education?
3. What do we need to know?

Resource person: Dr. Everett Rogers, Professor of Communications, Director, Diffusion Center, Michigan State University

Questions and Discussion
Dr. Leonard Demak, Director of REMIDY

Conversations on the Cutting Edge
Panel: Bornstein, Rogers, Cherryholmes, Allen, Suhr, Elbow. "Can Games and Simulation play a role in involving people in moving toward the solution of social problems?"

GAMES AND SIMULATION CONSORTIUM NO. 5
PARTICIPATION LIST
May 27-28, 1968

**Dr. Layman Allen
Law School
University of Michigan
Ann Arbor, Michigan

Sister Andreea
Instructor
Madonna College
Livonia, Michigan

Sister Angeline
Instructor, Spec. Education
Presentation School
Detroit, Michigan

Dr. James Berry
Director, Instructional
Services
Detroit Public Schools

**Mr. Stephen Bornstein
Associate Director
Apt Associates, Inc.
Cambridge, Mass.

Mr. Bert Brooks
Building Representative
Social Science and Language Arts
Roosevelt School
Livonia Public Schools

Sister Caroline Mary Gillin
Assistant Professor
Mercy College
Detroit, Michigan

**Dr. Cleo Cherryholmes
Assistant Professor
Dept. of Political Science
Michigan State University
East Lansing, Michigan

Mr. Francis Cheslik
Highland Park High School
Highland Park City Public Schools

Mrs. Edyth Cole
Director
Shared Learning Experiences
Wayne County Inter. School District

Mr. James Corley
Instructor
Northern Senior High School
Detroit Public Schools

Gloria Covington
Northern High School
Detroit Public Schools

Dr. DeLisle Crawford
Professor of Education
Wayne State University
Detroit, Michigan

Gloria Dalimonte
Taylor Junior High School
Taylor Public Schools

*Dr. Leonard Demak
Director
REMIDY
Wayne County Inter. School District

Dr. George Donoian
Administrative Assistant
Detroit Public Schools

*Mr. Leo Dworkin
Project Coordinator, Consortium of
Advanced Educational Thinking
Wayne County Inter. School District

Mr. Robert Ebeling
Taylor Junior High School
Taylor Public Schools

**Miss Linda Elbow
Field Representative
Apt Associates, Inc.
Cambridge, Mass.

Mr. Kirk Ernst
Student Teacher
Highland Park High School
Highland Park City Schools

Mr. Samuel Flam
Inservice Educational Specialist
MORFL
Detroit, Michigan

Mr. James Ford Taylor Junior High School Taylor Public Schools	Juanita Kirksey Northern Senior High School Detroit Public Schools
Dr. Sanford Glovinsky Assistant Director Information Services ASSIST Center, Wayne County Inter. School Dist.	Sister Lauriana Dean Madonna College Livonia, Michigan
Mr. Joseph Greene Northern High School Detroit Public Schools	Mrs. Sandra Littleton Materials Specialist ASSIST Center Wayne County Inter. School District
Mr. James Greiner Associate Director Special Services Wayne County Inter. School District	*Mr. Sam Mangione Director ASSIST Center Wayne County Inter. School District
Mr. David Heinzman Disseminator ASSIST Center Wayne County Inter. School Dist.	Sister Marie Rochele Archdiocese Child Appraisal Center Detroit, Michigan
Diane Hill Inservice Educational Specialist MOREL Detroit, Michigan	*Sister Martinez Instructor Madonna College Livonia, Michigan
Mr. James House Consultant, Secondary Education Wayne County Inter. School District	Mr. Robert Massey Math Dept. Head Stevenson High School Livonia Public Schools
Mr. Wilson Hughes Principal Walter White Elementary School River Rouge Public Schools	*Dr. E. J. McClendon Consultant, Secondary Education Wayne County Inter. School Dist.
Mr. Fred Iaonou Inservice Educational Specialist MOREL Detroit, Michigan	Mr. Roger McCaig Curriculum Assistant Grosse Pointe Public Schools
Mr. Timothy Johnson Northern Senior High School Detroit Public Schools	Mr. Norman McRae Inservice Educational Specialist MOREL Detroit, Michigan
Mrs. Zenobia Jones Curriculum Coordinator Inkster Public Schools	Mr. Richard Merrick Associate Director Chair of Educational Innovation Wayne County Inter. School District
Mr. Richard Kirk Federal, State and Special Programs Detroit Public Schools	Mr. Norman Milchus Assistant Director—Research and Evaluation ASSIST Center Wayne County Inter. School Dist.

Mr. Earl Newman
Highland Park High School
Highland Park City Public Schools

Mr. Vernon Nimocks
Northern Senior High School
Detroit Public Schools

Mr. Gary O'Connell
Taylor Junior High School
Taylor Public Schools

*Mrs. Dolores Paskal
Project REMIDY
Wayne County Inter. School District

Dr. Stuart Rankin
Direct
MOREL
Detroit, Michigan

Dr. Elvin Rasof
Director, In-School Youth Program
Detroit Public Schools

Dr. Chandos Reid
Consultant
33963 Hampshire
Livonia, Michigan

Dr. Theodore Rice
Professor of Education
Wayne State University
Detroit, Michigan

**Dr. Everett Rogers
Professor of Communications
Michigan State University
East Lansing, Michigan

Sister Rose Marie
Archdiocese Child Appraisal Center
Detroit, Michigan

Mr. Arlen Schroeder
Curriculum Coordinator
Crestwood Public Schools

Mr. Walter Schumacher
Assistant Director
Staff Development
ASSIST Center, Wayne County Inter.
School District

Dr. Sheldon Sofer
Federal, State and Special Programs
Detroit Public Schools

Mr. Thomas Steele
Curriculum Coordinator
Detroit Public Schools

Mr. Dick Steiger
Belleville High School
Van Buren Public Schools

Jacqueline Stewart
Northern High School
Detroit Public Schools

**Mrs. Audrey Suhr
Field Director
The Johns Hopkins University
Baltimore, Maryland

Lynne Svenning
Inservice Educational Specialist
MOREL
Detroit, Michigan

Dr. N. V. Thirtha
Curriculum Consultant
Wayne County Inter. School Dist.

Mr. Kenneth Tillman
Taylor Junior High School
Taylor Public Schools

Mr. Robert Tripp
Coordinator, REMIDY
Taylor Public Schools

Mr. Bernard Tinsley
Assistant Principal
Dwyer Elementary School
Detroit Public Schools

Dr. Harold Wells
Assistant Director—Action Programs
ASSIST Center, Wayne County
Inter. School District

Mr. William Wilson
Principal
Foley Elementary School
Trenton Public Schools

Susan Wittig
Taylor Junior High School
Taylor Public Schools

Mr. Joseph Young
Dept. Head, Social Studies
Northern Senior High School
Detroit Public Schools

Mrs. Mary Zudick
Consultant, Special Education
Dearborn Public Schools

***Planning Committee**
****Resource People**

Some Games and Simulations

Source or Game Designer	Title	Description
<p>Interact P.O. Box 262 Lakeside, California 92040</p>	<p>Panic</p>	<p>Divided into economic pressure groups of 1920-1940 in different regions of the United States, students have their grades directly influenced by their ability and by fate (that is, the Great Depression). Students study the prosperity of the 1920's and the depression of the 1930's. The simulation culminates in mock Congressional committees have a mock Congress trying to solve the economic crisis. For in 1929 earlier in the game, students have lost from 0 to 100% of their wealth when the stock market crashed.</p>
	<p>Division</p>	<p>Divided into four factions supporting Lincoln, Douglas, Breckinridge, and Bell, students study 14 issues dividing Americans during the 1850's: extension of slavery into the territories; the Dred Scott Decision; the protective tariff; the perpetuity of the Union, etc. The simulation culminates in two days when factions pressure, bargain, block one another during the last six "weeks" of the election of 1860.</p>
	<p>Disunia</p>	<p>Divided into 13 states on a new planet in 2087, students struggle with problems Americans became entangled in during the period of the Articles of Confederation, 1781-1789. The simulation culminates in a constitutional convention students see the necessity of calling while they</p>

represent their states Nova
Yuk= New York; Soah Coah =
South Carolina, Vespa =
Virginia, etc.

Sunshine Students are "born" by pulling race identity tags from a hat at the beginning of the simulation. During the remainder of the game, students wear their identities (tags which are either white, tan, brown, or black and which show education, job, income, and street address). The classroom is divided into Sunshine, a mythical city with six neighborhoods with varying degrees of segregation and integration in housing and schooling. While studying the history of the Negro from slavery to the present, students also research ways of solving current racial problems. Pressure cards force students to propose solutions to their city council, elected from fellow class members.

Academic Games Associates,
Center for Study of Social
Organization of Schools,
Johns Hopkins University
Baltimore, Maryland 21218

Consumer A model of the consumer buying process involving players in the problems and economics of installment buying; consumers compete to maximize their utility points for specific purchases while minimizing their credit charges; the three different credit agents also compete to make the most satisfactory lending transactions.

Democracy (Legislature) A composite of eight different games which simulate the legislative process; in the basic version players act as representatives, giving speeches and bargaining with other players. The object is to pass those issues which are most important to their constituents and thereby get re-elected. For quantities over 20 copies,

order from: National 4-H
Foundation, 7100
Connecticut Avenue, N.W.
Washington, D.C. 20015.

- Economic System** A simulation of the interrelationship of a competitive economic system. Mine owners, manufacturers, workers and farmers market, produce and consume goods while trying to make a profit and maintain a high standard of living.
- Life Career** A simulation of certain features of the "labor market," the "education market" and the "marriage market," as they now operate in the U.S. and as projections indicate they will operate in the future; the players work with a profile of a fictitious person, allotting his time and activities among school, studying, a job, family responsibilities and leisure time.
- Community Response (Disaster)** A simulation of a community hit by a localized natural disaster, each player tries to dispel his anxiety for family members who may be within the stricken area, while at the same time tries to operate his community post which is vital to the community's well-functioning and eventual overcoming of the disaster.
- Parent-Child** Simulates the relationship between a parent and an adolescent in respect to five issues differentially important to both; parents compete against parents and children compete against children to develop the best strategies in their relationships.

Abt Associates Inc.
55 Wheeler Street
Cambridge, Massachusetts 02138

Pollution

Designed to teach elementary school students about economic, technological, and political aspects of air and water pollution control. The first part of the game is a brief simulation of the generation of water and air pollution. The students, acting as residents of a New England town, produce goods and find that they thereby produce pollution. Both air and water pollution are physically represented on a gameboard. As the yearly cycles of production proceed, pollution is seen to affect the economy. The players are motivated to control pollution. The second phase of the game is a simulation of a town meeting in which the players meet to decide on a method of controlling pollution. They are given a list of technological alternatives and costs. Pollution was designed for the Curriculum Development Center of the Wellesley School System of Wellesley, Massachusetts.

**Elementary
School
Social Studies**

A fourth grade social studies course with a strong emphasis on games and three dimensional materials is being developed for the Learning Center, and affiliate of Creative Playthings, Inc. The course uses anthropological content to illustrate five social concept areas: family, technology, life cycle, resources, and political organization. Five pre-industrial societies around the world are presented, each an example of a type of pre-industrial economy.

Kolkhoz

A game about the collective farm economy in the Soviet Union. Students role play the Kolkhoz manager, peasant families, and the State

banker/representative of the Gosplan. Developed for the Board of Cooperative Educational Services (BOCES), Northern Westchester County, and sponsored by the Innovation Program of the New York State Education Department. For information contact BOCES, 845 Fox Meadow Road, Yorktown Heights, New York 10598.

Seal
Hunting

Designed by Abt Associates Inc. and adapted by the Education Development Center. A social studies board game in which children experiment with hunting and sharing strategies with an unpredictable food supply. Children play Eskimos and seals on opposite sides of the ice.

Hunting
Caribou

Designed by Abt Associates Inc. and adapted by the Education Development Center. A social studies board game in which children explore the relationship of technology and social organization in a culture using the example of caribou hunting among the Netsilik Eskimos of Pelly Bay.

Empire

A board game for junior high school students, EMPIRE was designed by Abt Associates Inc. and revised by the Education Development Center. Illustrates mercantile competition between American colonies and England in the 1730's. Seven teams of players, such as London merchants, colonial farmers, and British West Indies planters, bargain over prices, buy and sell goods, and move ships across the Atlantic. For information, contact the Education Development Center, Cambridge, Mass.

Potlatch
Game

Illustrates an important institution in the social and economic life of the Kwakiutl Indians of the Pacific Northwest. The game is part of the unit "Studying Societies" developed for the ninth and tenth grade by the Anthropology Curriculum Study Project of the American Anthropological Association. For information, contact Dr. Malcolm Collier, Director of the Project, 5632 Kimbark Avenue, Chicago, Illinois.

Raid

Designed to teach disadvantaged groups of students the problems and possible solutions to the crime problems of the city. Players are divided among a police team, with resources of men and weapons, a racketeer team, with resources of men and weapons, and teams representing city blocks, with resources of men and money. The police team attempts to catch the racketeers; the racketeers attempt to extort money and recruit men from the city blocks, and the city blocks seek to maintain or increase wealth and population.

Grand
Strategy

A game of international relations and diplomacy in a crisis wartime situation. The time period covers five years from 1914 to 1918, and players represent European nations. Their objective is to achieve their nation's political aim at minimum military and economic costs. Nations form alliances and move army divisions and ships on an outline of the European continent. Although there is some historical secrecy, the outcome need not be the same as in 1918.

Science Research Associates
259 East Erie Street
Chicago, Illinois 60611

**Inter-Nation
Simulation**

This is a simulation of international relations, including the interrelationship of domestic and foreign policy.

These five "Decision Making Exercises" have been written to supplement social science courses relating to American government. They were written by Leonard Stitleman and William D. Coplin.

**The Constitutional Convention:
A Decision Making Exercise**

**Presidential Campaigning:
A Decision Making Exercise**

**The Federal Budget and
Interest Groups: A
Decision Making Exercise**

**The Congressman At Work:
A Decision Making Exercise**

**Congressional Committees:
A Decision Making Exercise**

High School Geography Project
P.O. Box 1095
Boulder, Colorado 80302

Farming

An agricultural investment game staged in three different periods of U.S. history.

Metfab

Simulates some factors involved in locating a factory. A part of a provisional unit on "Manufacturing."

Section

Simulates conflicts of interest in a political area.

Project Simile
Western Behavioral Sciences
Institute
1121 Torrey Pines Road
LaJolla, California 92037

Crisis

A simulation of an international crisis over a mining area of vast importance.

Napoli

A simulation of the legislative process and its interrelationship with parties.

Plans

In this simulation, interest groups try to use influence and produce change in American society.

Washington Center for
Metropolitan Studies
1717 Massachusetts Avenue, N.W.
Washington, D. C. 20036

Urban Systems Simulations
organized to apply gaming
techniques to urban problems.
Region incorporates econ-
omic, social, and political rela-
tionships.

Preceding listing of games
adapted from

*Simulation Game for Social Studies Class-
room.* 1968, Foreign Policy Association.

Resource Persons

Clark Abt
Abt Associates Inc.
55 Wheeler Street
Cambridge, Massachusetts 02138

Layman E. Allen
Professor of Law and
Research Social Scientist
The University of Michigan
Ann Arbor, Michigan 48104

Sarane S. Boocock
Department of Social Relations
The Johns Hopkins University
Baltimore, Maryland 21218

Stephen Bornstein
Abt Associates Inc.
55 Wheeler Street
Cambridge, Massachusetts 02138

Cleo Cherryholmes
Assistant Professor, Political Science
Michigan State University
East Lansing, Michigan

James S. Coleman
Department of Social Relations
The Johns Hopkins University
Baltimore, Maryland 21218

Sister Caroline Mary Gillin
Mercy College
8200 West Outer Drive
Detroit, Michigan 48219

Paul De Kock
El Capitan High School
P. O. Box 698
Lakeside, California 92040

Richard L. Meier
Professor of Resources Planning
University of Michigan
Ann Arbor, Michigan 48104

Everett Rogers
Director, Diffusion Center
Michigan State University
E. Lansing, Michigan

Leonard Stitelman
Metropolitan Fund
Detroit, Michigan

Audrey Suhr
Department of Social Relations
The Johns Hopkins University
Baltimore, Maryland 21218

David Yount
El Capitan High School
P. O. Box 698
Lakeside, California 92040

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Prepared by the ASSIST Center-Information Service
Wayne County Intermediate School District for the
Consortium of Advanced Educational Thinking

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SIMULATION
(Operational Gaming)

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Sociol Ed 30: 521-2 N '66	War or peace: a simulating game.
Sociol Ed 31: 383-7 My '67	Reply
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