Simulation Games as Method

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IF a student wants to determine the genealogy of his family, find out about Abraham Lincoln's views on a certain political issue, or trace the history of space travel, he can do so by consulting books, printed records, and other primary or secondary sources. If, however, a middle class student wants to experience the feelings of defeat that ghetto people have in trying to improve their circumstances, if an urban student wants to gain some understanding of the economic pressures influencing farmers, if a youngster totally uninvolved in politics wants to better understand forces influencing political decisions, if a student wants a more realistic basis for learning about budgeting, or if he wants to make worthy decisions about a host of events which influence his life, he must become more directly and personally involved with the problems, possibly experimenting with several alternatives.

Teachers often talk about the importance of developing empathy for others, the desirability of sound economic practices, making responsible ecological decisions, developing a more responsive government, alleviating traffic congestion, and a range of other problems about which most students have little basis for developing feelings, making decisions, or suggesting alternative actions. Largely because of their lack of personal concrete involvement in these problem situations, they can be so objective as to be unrealistic and insensitive in their suggestions for solutions.

Conceding that personal concrete experiences provide a more realistic and functional perspective, how can such experiences be provided in a school setting? Because it is impossible to experience some situations directly without physical or emotional danger to the student, or because it is economically or politically not feasible, some alternative mechanism that provides reasonably personal concrete experiences must be utilized. Simulation can provide such a mechanism.

There is a concomitant and possibly even more important rationale for using simulation games in a classroom. It is to develop one's inquiry skills. Hopefully, schools no longer view their sole responsibility as requiring all students to acquire a specific body of information. Rather, the schools in contemporary society should help students develop social awareness, understanding of self and others, as well as logical thinking or reality testing skills.

Using the terms of Transactional Analy-

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sis,[1] schools should help students develop their Adult, to learn to gather information, process it, analyze it along with data already stored in the individual, and make logical decisions. Of course, after a decision that seems logical is made, the person will hopefully be open to reconsidering his decision as new data are acquired. Compare this process with making decisions based on stored prejudices (Parent) or solely on an emotional level (Child).

To develop inquiry skills using simulation, teachers must free students to learn; that is, the teacher must become a guide and resource rather than the primary source and direct conveyor of knowledge. Teachers must be willing to accept activity outcomes and students' attitudes with an open mind. By their actions, including nonverbal actions, they must value student judgment.

The use of simulation games implies that the teacher values the unique needs of individual students. It implies that learning is an active process rather than a passive one. It underscores the importance of students' examining their values and the values of others. And it means the instructor values the goal of learning to live with ambiguity, that two ideas may not be consistent although both seem to have validity.

Commercial Games

Teachers considering the use of simulation games should be cognizant of what simulation games can and cannot be expected to do. Instructors who have no previous experience using simulation games will find it helpful to use commercial games until they have developed confidence in using simulation games in their classrooms. When the teacher has developed security in the mechanics of the games, he can begin to be more creative in adapting games to meet specific needs, in developing games himself, and in guiding a class to develop a game. Games such as Dangerous Parallel (Scott Foresman), Ghetto (Western Publishing Company), and Star Power (Western Behavioral Sciences Institute) are excellent for novice gamers, and fit well into many curricula.

[1] Thomas A. Harris. *I'm OK—You're OK.* New York: Harper & Row, Publishers, 1969.

Student-Made Games

After playing one or more games, class members may be able to use the format as a basis for developing their own games. The development by students of simulation games can be a tool, just like note taking or committee work, to organize data collection and help solve a problem. The students then play the games to test their hypotheses, simulate a situation for further research, and generally broaden their perspective of the problem.

A list of elements generally included in simulation games follows. Teachers or students with teacher leadership can use this skeleton to develop games themselves after a problem has been identified.

Roles

What roles are involved in the simulation? What is the status (economic, political, etc.) of various roles, and how are persons in each role affected by the problem situation? As an example, suppose the problem situation being simulated involves pollution. The roles might include conservationists, industrialists, concerned citizens, farmers, politicians, or fishermen. Depending on the geographic location and the specific type of pollution, the roles might vary.

Goals

What are the goals of the individuals and groups in the simulation? If the problem is one on international conflict, the goals will vary according to political affiliation and economic circumstances. Whatever the problem, all goals will not be the same for each individual or role in the game. It is important for students to realize that goals differ and that they change with the situation over time.

Simulation games should allow players to set some of their own goals, using data they have collected and the framework of the game to guide them. They should also be given the opportunity to reevaluate and change these goals as the game proceeds.

Alternatives

What alternatives do various individuals or groups have in trying to achieve their goals? An important but often difficult step in the decision-making process is identifying reasonable alternatives. Rational decisions can seldom be made unless these alternatives can be identified, analyzed, and evaluated.

Simulation games should provide an opportunity for the players to consider the consequences of alternatives.

"Chance" Element

A very real part of life is the "chance" element, those things over which one has little or no control. Some chance elements can be anticipated, while others give no advance warning. What are the chance elements that may affect the individuals and groups involved in the simulated problem?

If one role in a game is that of a miner, chance elements might include an accident, a mine shutdown, a strike, and a better job becoming available. If the role involves a wage earner in any job, chance cards may include a hospital bill, the need to buy a new appliance, an increase in rent or insurance, and a wage increase or bonus. When rewards in the game are in the form of image points, as in Sunshine (Interact), the chance element might give a person of a specific race or economic level a high honor, which would increase the image points of all similar roles.

Focus on Interaction

There are various formats for simulation games and various reasons for choosing one over another. The problem or situation being simulated should of course influence the focus of interaction students choose. For example, the purpose of Generation Gap (Western Publishing Company) is for young people to think through some of the problems of communicating with their parents and other authority figures. The interaction is, therefore, player vs. player.

Some games may begin with each individual having separate goals and working independently with the option to form groups as it seems advantageous. For example, the Seal Hunt game (Education Development Center) has five or six individual roles. However, the option is open for the hunters to cooperate and share if they so choose. In Dangerous Parallel, students play the roles of leaders in six different countries (group vs. group); however, groups often form alliances as in the real world of politics.

Some games focus on interaction of student or group against the game or system, rather than competing against each other. For example, if the purpose of a game is to help students learn something about budgeting and responsibilities of wage earners, there might be no competition between the players in the game. In fact, the competition might be between the players and the system, that is, the economic system. The goal of each student might relate to budgeting his monthly earnings and getting ahead economically with the action of other players influencing him very little or not at all.

Most simulation games do not end with a "winner" or "loser," as in traditional games such as Monopoly, basketball, or Yahtzee. If the reason for developing and playing a specific game is to gain empathy for other individuals, a winner could scarcely be determined by the number of points gained. While evaluation of final outcomes must be the responsibility of the players who must decide for themselves how well they have achieved their goals, points or chips might be used as a source of pressure or incentive or to measure accomplishments or advancement within the game. In Ghetto, points represent money earned and increase in self-image. The immediate goal in Star Power is to increase points; the parallel in reality is the goal of people to gain power, status, and financial security.

Debriefing

The debriefing session of a game is that time when students talk about and examine what happened during the game, including their feelings, actions, and reactions. The situation simulated should be related to

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reality as the students know it. The debriefing should be used as a time of evaluation by the students and teacher, and it should also be a springboard to motivate further investigation and experimentation with alternatives, understandings, and feelings.

The debriefing emphasizes the necessity of keeping an open mind and making tentative decisions based on the data at hand, while being receptive to new data. Values are reexamined in the light of experiences in the game and related to reality. Open-ended questions and acceptance of all seriously given answers should be the rule during the debriefing.

Student-made games often demonstrate creativity but are seldom finished products. Even so, several worthwhile learning objectives can be achieved in the process of developing a simulation game. When students ask questions such as, "What data do we need to make the game more realistic?" and when they seek this information, they are developing research skills far beyond that which is typically expected from reading a chapter in a book.

In developing descriptions and background data for roles or in describing a scenario, students typically delve deeper and with far more enthusiasm than one finds where traditional methods are employed. Facts are still acquired; concepts are still being developed. More important, feelings and values are examined with a better understanding of self and others.

Simulation is suggested as a method for students to learn to empathize and develop inquiry skills. The use of commercially available simulation games is proposed for teachers and students to become familiar with the mechanics and potential of simulation. Upon gaining that perspective, it is suggested that a class (or convenient subgroup) of students develop a simulation game based on some problem situation they have identified, and that they then play the game. To aid in the development, elements of simulation games, possible formats, and other characteristics were briefly considered. The teacher's attitude and questioning techniques are judged to be especially crucial. ☐

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