A case for the use of simulation in speech education is built, and the teacher is encouraged to experiment with this strategy in various learning environments. The simulation model is described in the Planning Stage, the Developing Stage, the Implementing Stage, and the Evaluating Stage. It is concluded that as a teaching strategy, simulation games promise many rewards for the field of education. (LS)
A PRACTICAL MODEL FOR THE USE OF SIMULATION IN SPEECH EDUCATION

by

Gary T. Hunt
Department of Communication
Purdue University
Lafayette, Indiana 47907

and

Mary W. Redmond
Department of Communication
Purdue University
Lafayette, Indiana 47907

Speech Communication Association
San Francisco, California
December 27-30, 1971

"PERMISSION TO REPRODUCE THIS COPYRIGHTED MATERIAL HAS BEEN GRANTED BY GARY T. HUNT AND MARY W. REDMOND TO ERIC AND ORGANIZATIONS OPERATING UNDER AGREEMENTS WITH THE U.S. OFFICE OF EDUCATION. FURTHER REPRODUCTION OUTSIDE THE ERIC SYSTEM REQUIRES PERMISSION OF THE COPYRIGHT OWNER."
Youngsters playing together often become quite accomplished at designing and participating in various games. The activity gives children the opportunity to practice communication skills, such as speaking and listening, long before they step into the speech classroom. In the past few years, educational specialists have recognized this natural learning process and have created numerous simulation games for use in schools. Also, an increasing amount of research related to the use of simulation is being reported in the education journals.

According to Cruikshank, simulation may be defined as "the creation of realistic games to be played by participants in order to provide them with lifelike problem-solving experiences." Games are available which provide student experience in communication, scientific inquiry, information management, and decision-making. The ever increasing literature of games has been reviewed extensively by Cherryholmes and more recently by Gorden. Cherryholmes concludes, after evaluating some of the earliest research on simulation, that the strategy, as compared with other techniques:

- does produce more student motivation and interest, although there are not consistent differences in learning, retention, critical thinking ability or attitude.

In addition to increased student interest, Boocock reports that experience in communication seems to be an important byproduct of the simulation experience. By using this technique, the teacher creates an atmosphere which allows student to practice communication skills.

Most of the research dealing with simulation tends to be quite theoretical in that it does not provide advice to the classroom teacher about how to use simulation. As a result, teachers may be hesitant to use this instructional strategy because they lack specific information about the technique. To facilitate the teacher's understanding of the simulation process, this paper proposes a practical model for its use. The model will specify a number of steps for the teacher to follow as he attempts to use and construct simulation games. The purpose of this paper is to build a case for the use of simulation in speech education and to encourage the teacher to experiment with this strategy in various learning environments.
A PRACTICAL MODEL FOR SIMULATION

Determining Concept to Teach

Analyzing Class

Constructing Behavioral Objectives

Examining and Choosing of Instructional Strategy

discussion
lecture
simulation
film
C.A.I.
etc.

Adapting Strategy to Class

Selecting Prepared Game

Arranging Physical Space and Time

Explaining Rules To Class

Playing Game

Testing Student

Evaluation of Strategy and Game by Instructor and Student

A
Deciding to Invent Game

B
Examining Reality

C
Drawing Generalizations

D
Structuring Human Situation

E
Determining Game Organization
role
playing ... game
boarding

F
Establishing Rules for Playing and Winning

PLANNING DEVELOPING IMPLEMENTING EVALUATING
The Planning Stage

In the planning stage of the simulation model, the teacher goes through the process of determining objectives and choosing an appropriate instruction strategy that will enable students to reach the objectives. Course titles and descriptions often focus the scope of the class onto a few key concepts that must be learned by the student. From these concepts, various behavioral objectives are established. Since the interpersonal relationship between the speech communication teacher and his class is very important, the instructor may want to meet with his class before deciding on a specific content objective; for even the best of objectives may be changed by individual instructional situations such as time of day of the class, ratio of boys to girls in the class, students' backgrounds, and general class atmosphere. Once the class has been analyzed, the teacher may construct or revise behavioral objectives.

After the behavioral objective has been established and refined, the instructor must decide upon the most efficient method for reaching the objective. The model mentions only a few of the many options open to the teacher. Choice will depend upon the availability of educational resources. The decision to use simulation generally results from a teacher's desire to change normal class activities and provide his students with lifelike classroom problem-solving experiences. In deciding to use simulation, the teacher usually prefers to emphasize these problem-solving skills instead of subject content.

Developing Stage

Once the teacher has decided to use simulation, he may find an appropriate game already on the market. Perhaps the best known of these available games are Life-Career, Cities, and Diplomacy. The obvious advantage in selecting an available simulation game is that it takes less time than constructing an original. In the last five years, numerous games have been developed that are particularly useful in communication. Among these are Propaganda, Community Response, Election and the recently published Nine Men Plus. Both Gorden and Boocock and Schild are excellent
sources for teachers seeking available simulation games. But if the teacher finds that none of the available games are suitable for his purpose, he may invent his own.

A. Deciding to Invent a Game. The teacher, once he decides to invent a game, may continue the invention process himself or cooperate with his students to have "game-building" as a part of the class curriculum. Students who prepare a game as a class project have a valuable opportunity to practice problem-solving, arbitration, and compromise through group discussion as they construct the game.

B. Examining Reality. The second stage in simulation construction involves a thorough analysis period by the teacher of the problem-area to be used in the game. This analysis can be done through self-examination, extensive reading, and conversation with faculty colleagues. This may be thought of as a "brainstorming" stage. To illustrate, a teacher may decide to construct a simulation game involving non-verbal communication. Before considering the final product, the simulation game, the instructor should go through a thorough process of learning all that he can about non-verbal communication. This research period will allow him to build a more lifelike game for his students.

C. Drawing Generalizations. The third step is crucial in the development of simulation. The teacher must draw generalizations from the voluminous amount of information which he has collected. But in this process he must be sure that his generalizations reflect reality accurately. Returning to our example, the teacher building a simulation game based on non-verbal communication must be very careful to generalize accurately about the subject. The more accurate the generalizations about non-verbal communication, the more "believable" his game becomes.

D. Structuring the Human Situations. The teacher now attempts to exercise his creative imagination in order to structure plausible human situations. Valuable input may be gained from the students who will be playing the game. The human situations, structured by the teacher, should allow the student to gain insights into human behavior. Once a believable and representative situation has been developed, the teacher may create and refine the game's procedure.
E. Determining Game Organization. At this stage in construction, the game-builder must decide on a format for the simulation activity. The scope ranges from games played with small boards and movable pieces, such as Election, to role-playing, similar to Nine Men Plus.

The number of possible combinations of game boarding and role-playing techniques are as limitless as the instructor's imagination. The teacher will be most likely to use role-playing when he desires a high degree of spontaneity and physical involvement from the players. Game boarding minimizes physical participation since the player concentrates more on the strategy of another player than on the other's physical actions. The next obligation of the game builder is to structure guidelines for successful game-playing.

F. Establishing Rules for Playing and Winning. There is no single method for establishing simulation rules. Since there are many kinds of behavioral objectives, it would be misleading for the authors to present a single formula for success. The instructor must remember, however, that he is constructing a game that represents real life and the rewards and punishment a student may encounter in a game will be useful only if they mirror what the student is likely to face outside the classroom. At this point, the simulation game is basically complete. Only the physical arrangements remain before the activity can begin.

G. Arranging Physical Space and Time. Decisions about space and time must be made by the teacher whether he uses either the newly created or the prepared simulation game. Obvious factors such as school facilities and schedule flexibility must be taken into consideration. Generally, simulation takes more class hours than most other instructional strategies.

Implementing Stage

As the game is played, sufficient time should be allowed for student questions which are certain to arise with new classroom exercises. Therefore, someone familiar with the game's rules should be available for consultation throughout the activity. As the simulation game ends, the teacher is free to evaluate student progress toward the pre-established behavioral objective.
Evaluating Stage

The final step in the use of simulation measures the effectiveness of the strategy, and suggests possible changes in the game to make it more effective the next time it is used. It is therefore not the last step in educational simulation, but instead leads back to the initial step of adapting instructional strategies to particular class needs. The importance of this evaluation opportunity for teachers and students cannot be overemphasized. Students should be encouraged to reveal not only what they liked and disliked about the simulation experience but also any suggestions for improvement which might make the activity more interesting and beneficial. The teacher should also spend time evaluating the activity to determine if the simulation strategy was the most efficient method of reaching his behavioral objective.

As a teaching strategy, simulation games promise many rewards to the field of education. This paper has outlined steps and presented a practical model for the implementation of simulation in the classroom. The goal of the paper has not been to suggest that simulation is a panacea for all educational problems. Like any educational tool, this technique will be better suited for teaching some specific units of speech communication than others. But with a proper approach, simulation can offer many benefits to students.
ENDNOTES


5 Cherryholmes, p. 5.


11 Boocock and Schild, p. 102.