### Developments In Business Simulation & Experiential Exercises, Volume 23, 1996

# HOW DO WE MEASURE THE 'LEARNING' IN EXPERIENTIAL LEARNING AND HOW DO WE BEST STIMULATE IT?

James W. Gentry, Phil Anderson, Alvin C. Burns, Hugh Cannon, Anthony J. Faria, Ron Frazer, Jerry Gosenpud, Leigh Lawton, Ray Nulsen, Richard Teach, and Bill Wellington

The measurement of "learning has been dealt with from a wide variety of perspectives in ABSEL. The organization of the session will involve a series of short paper presentations of the authors' perspectives, followed by comments from the discussant (Hugh Cannon, who will also act as discussion facilitator). Given the differences in perspective being presented, the discussion is expected to be lively.

#### THE GAMING LEARNING PROCESS

Bill Wellington and Tony Faria, University of Windsor, Ray Nulsen, Xavier University

By making decisions that are more consistent with the environment defined by the game parameters, it is assumed that the game player has <u>learned</u> how best to adapt to the simulation environment. The results of the study suggest that simulation play primarily results in operant conditioning with cognitive learning playing a secondary role.

### MEASURING SUCCESS IN BUSINESS GAMES

Richard Teach, Georgia Tech University

Measuring success in management simulations by the accumulated profits is pleasing but irrational. Business professors like to explain that maximizing stockholder wealth is the ultimate goal of business and thus profit maximization is the best measure of success. When this economic concept is moved into the gaming environment, it makes many assumptions about the underlying design features of business simulations.

## 'LEARNING' IN TOTAL ENTERPRISE SIMULATIONS

Jerry Gosenpud, University of Wisconsin-Whitewater

"Learning" is hard to pin down partially because it is a process, which we can see only indirectly. We can see the behavioral changes that result from learning but we cannot see the learning itself. Defining and measuring learning in simulations is especially difficult because how one learns and what is learned are often different across individuals. A summary of the research program of Gosenpud and Washbush will be presented; it concludes that there is no easily identified relationship between performance and

learning in the simulation.

# HOW DO WE MEASURE THE 'LEARNING' IN EXPERIENTIAL LEARNING

Phil Anderson and Leigh Lawton, Univ. of St. Thomas

Their perspective: (1) There are no direct measures of learning at higher levels of Bloom's Taxonomy. (2) There is an absence of good proxies for measuring learning at higher levels of Bloom's Taxonomy. (2) There is need to (a) test proxies with (b) process and performance measures at (C) multiple points in time during the simulation experience.

# HOW DO WE MEASURE THE LEARNING IN EXPERIENTIAL LEARNING

J. Ronald Frazer, Emeritus, Clarkson University

Measuring the learning that takes place is considerably more difficult than in a traditional course, however, because the learning is so varied and different from one individual to another. The major advantage of simulation gaming over pedagogies such as case studies comes through the intensity provided by the competitive setting of most games. Because of this intensity, the students seem to retain the knowledge acquired to a far greater extent than is usual, even to the extent that we have to be concerned about their having learned the wrong concept.

### EXPERIENTIAL LEARNING'S ROLE IN MOTIVATING STUDENTS: A MODEL BASED ON CURIOSITY

James W. Gentry, University of Nebraska-Lincoln Alvin C. Burns, Louisiana State University

The focus in education on cognitive elements tends to overshadow motivational aspects. Loewenstein (1994, p. 93) notes that 'educators know much more about educating motivated students than they do about motivating them in the first place.' Loewenstein (1994) developed a model of curiosity based on the notion of manageable gaps in one's knowledge. We argue that the use of experiential learning can indeed be highly motivating as long as it provides manageable information gaps between what one knows and what one wishes to know.