DEAL & GEO: PROGRESSIVELY INTEGRATING GAMING SIMULATIONS FOR ENTREPRENEURSHIP AND INTERNATIONAL BUSINESS

Precha Thavikulwat, Towson State University

ABSTRACT

Both DEAL and GEO are multi-industry, multi-role, individual-scoring business gaming simulation that gives participants practice in executive deal making. Deceptively simple for participants, both require few decisions, but challenges participants to outmaneuver intelligent markets. When installed on a local area network, both automate administration by beginning, advancing, and ending the competition on their own accord. GEO extends DEAL to include four nations and a voter role with respect to monetary, fiscal, and trade policies. It shows participants how an international economy functions, and how macroeconomic statistics are computed. As preconfigured, GEO begins where DEAL ends to give a progressively integrating learning experience. Notable features include individual and team tracking, regulated venture creation, public and private enterprises, primary and secondary stock markets, bankruptcy support, and market-based scores.

DEAL

Although "entrepreneurship education has experienced unprecedented growth over the past 15 years" (Robinson & Haynes, 1991, p. 41), few business gaming simulations have been designed specifically for this field. A fundamental problem of designing a gaming simulation for entrepreneurship lies in the lack of a generally accepted definition of the term *entrepreneurship* itself (Bygrave & Hofer, 1991). Even so, scholars in the field do attempt to distinguish entrepreneurship issues from small-business issues, but the two are frequently confused (Wortman, 1987). Thus, some small business gaming simulations have been promoted as suitable for entrepreneurship education.

Taking a different approach, DEAL supports executive deal making in venture selecting, planning, executing, and assessing. To the extent these activities are synonymous with entrepreneurship, DEAL supports entrepreneurship education directly. DEAL allows each participant to select among five interdependent industries (Thavikulwat, 1993) in which to form businesses, to choose the role each will assume in the businesses, and to manage his or her own private account. Thus, DEAL is a multi-industry, multi-role, individual-scoring gaming simulation.

For participants, DEAL is deceptively simple. Although each participant assumes up to seven roles, no role requires more than five decisions. The simulation manual contains fewer than 50 pages. Production processes are modeled by a deterministic step function. Market processes, however, are completely gamed (Thavikulwat, 1990): participants buy and sell resources, products, and shares among themselves. The challenge to participants lies in outmaneuvering the markets, which are intelligent because they embody the participants' collective intelligence.

For instructors, DEAL is an automated administration gaming simulation. When installed on a local area network, the activity-driven program (Thavikulwat, 1994) begins, advances, and ends the competition on its own accord, entirely without administrative action. No handling of paper or diskettes, either by participants or by instructors, is required. An alphabetized listing of participants together with their immediate scores can be gotten by the instructor at any time.

DEAL is preconfigured to advance through seven phases, each of which it calls an *age*. Participants register in the first age; the founding of companies in the first to fifth industries is successively enabled over the next five ages; and conditions are fixed in the last age to avert end-gaming.

GEO

GEO is an extension of DEAL that incorporates four nations and a voter role. Participants are each assigned to a nation, and allowed to vote for changes in that nation's monetary, fiscal, and trade policies. Monetary policies consist of interest rates on deposits, loans, and overdrafts; fiscal policies consist of personal and corporate tax rates, and entitlements; trade policies consist of subsidies on exports and tariffs on imports. Policies are changed automatically by the GEO program when a sufficient proportion of nationals vote for the change.

GEO shows participants how an international economy functions, and how macroeconomic statistics are computed. It allows products and shares to be traded across nations; accounts for national balances and incomes; and gives unemployment rates, price indices, and trade balances.

GEO is preconfigured to advance through six ages. Participants register in the first age; company foundings in all industries are enabled in the second; changes in monetary, fiscal, and trade policies are successively allowed in the third, fourth, and fifth ages; and conditions are fixed in the sixth to avert end gaming.

GEO is preconfigured to begin where DEAL ends. Accordingly, those who participate in GEO after experiencing DEAL receive a progressively integrating learning experience.

NOTABLE FEATURES

DEAL and GEO each involve four programs, two for participants and two for the instructor. The participants' programs register participants, execute decisions, maintain accounts, score performance, and report market transactions. The instructor's programs allow the instructor to set the transition point for each phase of the gaming simulation, to redefine the character of each industry, to see the state of the competition at any time, and to intervene as needed. These programs enable the following features:

- *Individual and team tracking.* Each participant is tracked, in addition to each team. This permits each participant to be independent of a team. Participants may freely disassociate from a team, join more than one team, or enter discordant decisions.

- *Regulated venture creation.* The instructor can regulate venture creation by requiring either payment of a fee or submission of a feasibility study or both.

- *Public or private enterprises.* The instructor can allow enterprises to be privately owned or require them to sell shares to the public, or the instructor can permit private enterprises at one time and require public offerings at another.

- *Primary and secondary stock markets.* Participants can trade in stock for investment, liquidity, or speculation.

- *Bankruptcy support.* Companies can go bankrupt without disrupting the competition or requiring instructor intervention. Shareholders of bankrupt companies can dispose of their worthless stock;

executives of bankrupt companies can seek employment with other companies or start a new venture.

- *Market-based scores.* Because individual and team scores result from the activities of gamed markets, which are genotypical to their counterparts in the everyday world, the scores are veridical measures of success under real-market conditions. No contention of verisimilitude is needed, for the markets are real.

EQUIPMENT REQUIREMENT

Although both DEAL and GEO will run on any IBM-compatible machine with at least 512 kilobytes of memory, its automated administration feature is best utilized on a local area network. Recommended system software are DOS 3.1 + and Novell NetWare. If the network allows for remote computing access, pc ANYWHERE is recommended software for this purpose.

AVAILABILITY

For a complimentary review copy of either DEAL or GEO or both write or e-mail the author at the Dept. of Management, Towson State University. Townson, MD 21204-7097, phone 410-830-3230. Fax 41 O-830-3236,e-mailthavikulwat-p@toe.towson.edu orthavikuiwatp@to wsonvx.bitnet.

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