

COACHING BUSINESS GAME TEAMS  
USING A DECISION VARIABLE OPTIMIZER

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**Demonstration Rationale and Method**

The classroom role of those administering computer-based games for management education and development purposes is one that typically asks them to proactively guide the learning process using the learning cues and structure created by simulation's learning environment. This role is an important one. Instructors can influence business game teams (Certo, 1976; Dill, Hoffman, Leavitt & O'Mara, 1961; Keys, 1977; McKenney, 1967) but the successful conduct of their role requires a number of unique instructor skills and personal attributes. Additionally, the exact nature of the content of the player/administrator interaction is problematical.

Starbuck and Kobrow (1966) were surprised to find to find that advised teams of graduate students playing the UCLA Executive Decision Game (Version 3) did not outperform unadvised teams in an economic sense. More importantly, they discovered unadvised teams were more friendly towards each other and made their decisions more-often outside regular meeting times. They also placed more emphasis on short-term results and the advisors were unsuccessful at making the simulation experience a laboratory for the use of sophisticated decision models, which was the faculty's emphasis. The advisors instead found their counseling sessions revealed large gaps in the understanding of basic concepts and that these gaps had to be filled during their advising sessions. It was also discovered that players would only accept advice and coaching felt to be relevant within the gaming situation created by the simulation.

Rollier's (1992) experience with about 400 IBM executives playing the *Strategic Management Game* (Aronson, Gekoski & Spero, 1987) also provided insight into the nature of the instructor's role. He concluded the role should be that of facilitation. To exercise this role the instructor had to have both a deep knowledge of the simulation

itself and a breadth of knowledge regarding the various multi-functional concepts being modeled. Moreover Rollier found the instructor had to employ judgment with respect to the amount, rate, and level of sophistication of information supplied players over the simulation's duration. This need for pacing knowledge and support was also found by DeBattista (1986). Higher learning levels were attained by those receiving weekly structured feedback on assignments related to *The IMAGINIT Management Game* (Bardon, 1978) as opposed to those playing the same game without structured feedback.

Given these observations regarding the need for a game administrator to evince a positive, supportive and economically-relevant role, we would like to demonstrate how a specially-designed program that optimizes decisions a company should have made in a business game can be used as a facilitator's coaching aid. A decision variable optimizer (Roge', 1996, 1996) has been designed and programmed for Henshaw and Jackson's *The Executive Game* (1990) that produces period-by-period locally optimal decisions for a particular period's run. Because each period's "best" decision set is known by the facilitator, given all other company decisions and results associated with that period's run, coaching and counseling sessions can be conducted in a more meaningful fashion. During such counseling sessions players can be (1) shown that an optimal decision set exists thereby pointing the way to greater rationality while simultaneously supporting the game's internal and external face validity, (2) guided as to how to create forecasting techniques and decision rules that will help them to construct the probable nature of their firm's next-period decision-making environment, and (3) provide an alternative to profits as a team evaluation criterion should the instructor so choose (Teach, 1990).

**Time Schedule**

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- I. Greeting and introductions (5 minutes)
2. Literature review on facilitation and facilitation strategies (5 minutes)
3. Description of *The Executive Game* Decision Variable Optimizer (10 minutes)
  - a. How created
  - b. How it works
  - c. Model validation
  - d. Output created
4. Coaching a team with the Decision Variable Optimizer (15 minutes)
  - a. Questions typically asked; Answers that can be provided
  - b. Forecasting and decision-making tools created and suggested
5. Discussion and question and answer period (10 minutes)

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