

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

USING EXPERIENTIAL EXERCISES FOR COLLECTING RESEARCH DATA: INTEGRATING TEACHING AND RESEARCH

John K. Butler, Jr., Clemson University

ABSTRACT

One way to fulfill the obligation of good teaching and good research is to combine the two processes. An experiential course can be turned into a series of research studies without compromising students' learning goals. The studies cited in this paper used data from experiential exercises to test a number of causal hypotheses. These classroom studies had several benefits for teaching/learning as well as research.

INTRODUCTION

A frequent claim of university administrators is that good teachers are also good researchers. While this statement might be valid for teachers of upper-level graduate students, I would argue that many of the characteristics of good teachers are precisely those that make poor researchers (and conversely). While there might be a few talented academicians who are good at both skills, most of us are good at one or the other -- or maybe both, but at different times. One way to enact both of these roles simultaneously is to combine them by using students as participants in a process that integrates learning objectives with research objectives.

Students often can serve as convenient sources of research data. However, the use of student samples is criticized on several counts. Even if students participate in controlled laboratory experiments, there are serious threats to external validity because the contrived situations have neither real nor important consequences to the participants. Students are not real managers or employees. They are not members of real organizations. Their feelings and behaviors might differ from those of real workers.

In contrast, an experiential exercise can be designed so that students enact real roles in a real organization. They become involved in tasks with important and immediate consequences, complete with the resulting strong feelings. Many exercises can be designed as true experiments, and a class can be set up as a real organization. If you love both teaching and research, it can be fun and productive to do both simultaneously.

This paper describes how four different exercises (Performance Criteria, Ugh Orange, Hollow Square, and Disarmament) have been used to gather data for research. While the topics are limited to my current research interests (political representation, choice shift, negotiation, intergroup dynamics, trust, and power) anyone can adapt the same four exercises (and many others) to investigate other topics.

PERFORMANCE CRITERIA EXERCISE

Political Representation

Decisions of individuals and groups in organizations are often represented by boundary spanning people, who are members of higher-level groups. Much of the theoretical foundation for boundary spanning roles and constituent effects comes from Adams (1976, 1980) and his colleagues/former students (Organ, 1971; Wall, 1975a, 1975b). The political models come from Burke (1889); Eulau, Wahlke, Buchanan, and Ferguson (1959); and Miller and Stokes (1963). However, neither Adams' theory nor the political models have been tested in laboratory settings with real, important, and immediate consequences to the participants. One function of the Performance Criteria Exercise (Butler, 1979) is to provide data for such tests.

In the Performance Criteria Exercise, students make three sets of decisions. For the first set of decisions, students act as Individuals in assigning percentage weights to seven grading criteria (tests, case analyses, class participation, etc.). For the second set of decisions, they form primary groups, each of which reaches consensus about the percentage weights and then chooses a representative. For the third set of decisions, the primary-group representatives meet in a congressional group, which comes to a consensus about the weights. These congressional decisions constitute the class's input to the instructor who then makes the final decision with a consultative leadership style. Since the outcome of the exercise affects the way students' grades will be calculated, they take it very seriously.

A congress can meet in either a public or private condition. In the public condition, the constituents observe the congress and can communicate with their representatives, call caucuses, and/or replace their representatives. In the private condition, all constituents are dismissed from class before the congress meets. The pragmatic purpose of the exercise is to obtain students' input on the weights for various grading criteria. From a teaching/learning perspective, the exercise is intended to illustrate choice shift from individual to group, representation of lower-level preferences by individuals in higher-level groups, and the consultative leadership style. From a research standpoint, the research question focuses on how the representatives in congress

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carry out their responsibility of representing their constituents. There are at least three models of political representation. The trustee (Burkean) model specifies that representatives will argue in congress for their own private preferences. The delegate model specifies that representatives will argue in congress for the preferences of their individual constituents. The responsible parties model specifies that representatives will argue in congress for the preferences that were mandated by their primary groups.

The analysis focuses on the congruence between preferences advocated by representatives in congress and: (a) the mean of the constituents' preferences (delegate model), (b) the representatives' preferences (trustee model), and (c) the primary groups' preferences (responsible parties model). Congruence can be computed for each of the seven grading criteria. This procedure yields a sample size of seven times the number of congresses since each individual, primary group, and congress indicates seven preferred percentage weights. Edwards (in press) has recently suggested a method for analyzing congruence that avoids some of the problems in testing models with difference measures as dependent variables.

Studies to date (Butler, 1985; Butler & Crino, 1986) have indicated a preference for the responsible parties model over the other two. Also, publicity and issue importance significantly increased the congruence between congressional preferences and the preferences of both primary groups and individuals.

Choice Shift

Another study (Butler & Crino, 1992) used only the data from the individuals and their primary groups in the Performance Criteria Exercise. That study investigated individual-to-group choice shifts and the reasons for those choice shifts. The data supported hypotheses that predicted both polarization and cautious shift (not risky shift). Attributions about causes of preference changes indicated that either Persuasive Arguments Theory or Social Comparison Theory explained every choice shift. Persuasive arguments were cited four times as often as social comparisons as reasons for choice shifts.

UGLI ORANGE EXERCISE

Negotiation and Trust

The Ugh Orange Exercise is a role-play addressing conflict between two negotiators who represent competing firms. Both negotiators want all the existing Ugh Oranges, but they do not realize that one wants only the rind; the other,

only the juice. Thus, a win-win solution is possible if the negotiators trust each other enough to divulge their true needs and goals.

The role-playing is observed by a silent observer who records interactions as the negotiating process unfolds. It is useful to select articulate observers because their data are crucial to the research as well as the teaching.

The experiment includes the standard mistrust condition as well as a trust condition. In the mistrust condition, the negotiators are briefed that there is a history of fear and suspicion between the two firms. In the trust condition, there has been a high level of reliance and confidence between the firms during the past several years. Some very interesting discoveries were made about the effects of trust, information sharing, and conflict orientation on the effectiveness and efficiency of negotiations (Butler, 1994, 1995).

A third condition would be high-low trust, in which one negotiator trusts the other, but the second mistrusts the first. Although I have not tried this condition yet, research on mixed-motive dilemmas (Deutsch, 1958) suggests the hypothesis that mistrusters would tend to take advantage of trusters and come out with better deals than the trusters. It is also hypothesized that this relationship will be moderated by need for power (n-pow): mistrusters with high n-pow will take greater advantage of trusters than would mistrusters with low n-pow.

HOLLOW SQUARE EXERCISE

Intergroup Dynamics and Trust

The Hollow Square Exercise calls for operating teams to carry out the plans of planning teams. The operators leave the room while the planner's plan. The planners are instructed to summon the operators "no later than 20 minutes" after they start planning. The operators' task is to assemble a jigsaw puzzle. The intended lessons concern work design, leadership, and change. However, an important side issue is the trust between planning and operating teams. Trust can be manipulated in order to test for differences in performance between trust and mistrust conditions.

If the planners have internalized their learning about involving employees in change efforts, they summon the operators earlier than the required 20 minutes -- maybe as soon as possible. More importantly, unless the planners summon the operators earlier than required, they do not have time to communicate either the task or the plan to the operators.

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I found no significant effects of trust on the tendency of planning teams to summon operating teams early, nor on the success of operating teams in completing the puzzle. The primary determinant of the planners' summoning the operators early seems to be the mutual visibility of planning teams in a classroom. If one planning team summons its operators, the others see that happening, so they do it too. The primary predictor of success of the operating teams in solving the puzzle (a disjunctive task) seems to be the ability of the most capable operating team member, who has the highest spatial-relations aptitude. However, my data on the Hollow Square Exercise are limited to only two semesters with 12 planning and 12 operating teams. It is possible that a larger sample size will support positive effects of trust on participatory tendencies and performance.

DISARMAMENT EXERCISE

Intergroup Dynamics and Trust

Intergroup trust is a central issue in the Disarmament Exercise (Hall, Bowen, Lewicki, & Hall, 1975). This exercise is a modification of the mixed-motive prisoner's dilemma, which has been used hundreds of times to study trust (Deutsch, 1958). The advantage of using an in-class role-play, like the Disarmament Exercise, is that substantial credit for class contribution can be given to the teams that "win" the exercise. This reward, along with students' competitive tendencies, causes considerable motivation to perform seriously. It also generates much anxiety about losing, and it evokes strong feelings about some of the Machiavellian tactics that are often perceived as being necessary to win mixed-motive games. Thus, like the Performance Criteria Exercise, the Disarmament Exercise can hold real and important consequences for students.

The dynamics of the exercise are very well predicted and explained by Zand's trust models (1972, pp. 231-232). Team A's initial expectation about the trustworthiness of team B should have a major impact on team A's strategy (arming vs. disarming, and lying vs. truth-telling) in the first round. In subsequent rounds, the first-round behaviors of each team would have the primary impact on the other team's behavior. Thus, it is hypothesized that the first round, especially, will be affected by a Zand-type trust manipulation.

The Disarmament Exercise provides an arena for testing the effects of trust on performance. An experiment can be performed by manipulating trust conditions between the partner/opponent teams. The referees record the scores on their score sheets. The analysis could involve a one-way ANOVA with a Duncan's multiple range test to

contrast the three conditions in terms of the dependent variable, the teams' scores on the exercise.

Need for Socialized Power

Socialized power, often called the positive face of power (pfp), has been found to relate strongly to managerial and group performance (McClelland, 1970; Stahl & Harrell, 1981, 1983). These studies suggest several interesting hypotheses on power and performance, which can be tested with experiments in experiential courses. Support of the following hypothesis was used as evidence of the construct validity of an instrument designed to measure pfp (Butler & Stahl, 1993). Negotiators in the Disarmament Exercise will tend to score higher in pfp than will non-negotiators. This hypothesis was predicted from the following rationale: (a) the exercise has real consequences for students; (b) each negotiator is required to use power to influence his/her opposing negotiator; and (c) team members would try to choose as negotiators those members who could use socialized power to benefit their teams.

CONCLUSIONS

Gathering research data from experiential exercises can have several benefits. First, from a research perspective, the data enable us to investigate research questions and contribute to the body of knowledge in our field. Second, the research objectives are often closely intertwined with the teaching/learning objectives. The lessons that we instructors learn from the research can improve our own understanding of the exercises we use; and can suggest lessons to convey to our students. Third, feeding back the research results to students can reinforce the learning from the exercises. I believe that gathering data from experiential exercises offers research and teaching opportunities that we should not overlook.

REFERENCES

References will be provided by the author on request.