

Exploring Experiential Learning: Simulations and Experiential Exercises, Volume 5, 1978

SIMULATION AND EXPERIENTIAL LEARNING AS HUMAN SUBJECT RESEARCH

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ABSTRACT

Simulation games and experiential learning exercises are viewed by many ABSEL members as research opportunities as well as teaching devices. A review process for research on human subjects is, or soon will be, applicable to research of the kind performed by ABSEL members. Policy in this area is still embryonic. Therefore, ABSEL members and the Association still have an opportunity to contribute to the formulation of guidelines.

MAJOR ISSUES

The purpose of the review process for research on human subjects is to protect the interests of individuals who may be “. . .exposed to the possibility of injury, including physical, psychological, or social injury, as a consequence of participation as subjects in any research development or activity.. “[71. Federal guidelines apply to research supported by grants and contracts. Many states have passed similar regulations covering other research studies. While rules may vary from campus to campus, federal guidelines provide an appropriate model for general consideration of the issue.

Most campuses now have committees which review research proposals where human subjects are involved. These committees are most often concerned with the research activities of psychology and sociology faculty. It often does not occur to these committees or to business faculty that state and campus policies on human subject research also apply to many research studies of business and economic activity.

Research on the effects of simulation gaming and experiential learning clearly involves humans as research subjects. One of the earliest papers on experiential learning expresses the objective of having an impact on feelings and behavior as well as providing cognitive stimulation [14]. It follows that experiential learning involves both a psychological and a social component. Thus, research on such activities falls within the charge to human subjects review committees.

Since psychological and social effects are expected from experiential learning activities, guidelines for the protection of human subjects might well be generally applied even for instructional uses that do not involve research. Instructors, as well as

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researchers, should ask whether "...the risks to the subjects are so outweighed by the sum of the benefits to the subject and the importance of the knowledge to be gained as to warrant the subject to accept these risks." [7].

REVIEW OF ABSEL RESEARCH

Perusal of the four previous ABSEL Proceedings indicates a strong interest in using simulation gaming and experiential learning as a research as well as an instructional environment. Three research studies are reported in the 1974 proceedings [15, 17, 21], and four more are reported in the 1975 edition [1, 6, 13, 18]. In 1976, six studies are reported [4, 5, 8, 10, 12, 24], two proposals for research are discussed [3, 9], and there is a review of nine earlier studies [16]. Last year's proceedings contains reports of six more studies [2, 11, 19, 20, 22, 23].

These studies may be grouped into three broad categories relevant to evaluation of the use of human subjects. Studies which do not involve manipulation of the learning environment involve human subjects who, generally, are not "at risk." Studies which involve different teaching methods for different students raise questions of social risk (are students receiving equivalent educational benefits). And, studies which systematically manipulate the students in the context of experiential learning raise additional questions about psychological risks.

Seven of the studies reported in ABSEL proceedings [2, 8, 10, 15, 17, 21, 22] do not involve manipulation of the pedagogical experience. Four of these relate student satisfaction or performance to demographic or personality measures taken either before or after the exercises [2, 10, 15, 22]. One simply measures the learning impact of an exercise [17], and another compares student performance to "programmed" strategies in a simulation game [21].

A study comparing the performances of students who played three different games at two universities [8] is also included in this category. The text of the paper implies that the investigator did not manipulate instructors' choices of teaching materials. If circumstances or decisions beyond the control of a researcher cause different subjects to receive different "treatments", human subjects research guidelines typically deem the study to be beyond their interest (such research is usually classified as research on pre-existing data even though the investigator may conceive the project before the events leading to the data occur).

By far the most frequent approach to research on simulation and experiential learning reported in the ABSEL proceedings involves subjecting different classes or sections of students to different classroom experiences [3, 6, 11, 12, 13, 16, 18, 19, 20, 23, 24]. This approach raises the question of whether or not students are fairly treated.

Students are entitled to the highest quality education their

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instructors can provide. Since virtually all students are charged some tuition, there is a contractual obligation and implied warranty to provide educational value. The purpose of pedagogical research is, at least in part, to determine what form instruction should take. It may be argued that the researcher does not know, a priori, that some subjects may receive less education than others. However, it is also evident that such research hopes to detect a large enough difference in some aspect of students' experiences to draw conclusions about instructional methods. It follows that some differences in educational quality are expected.

Whether, and under what circumstances, such research should be pursued is not a simple issue. A great number of future students would benefit from the discovery of superior pedagogical methods. The history of these types of studies is that substantial variations in educational quality are unlikely. And, the differences in student treatments are generally not beyond the range that occur naturally as a result of teaching decisions made by different instructors. In some instances, different section instructors made decisions to teach classes differently before the research study was conceived [19 for example], and one cannot argue, without the study, that one faculty member should follow the others example.

Federal, and many state and local guidelines, do require that when risks, even minor ones, to human subjects are possible, that subjects should be informed that an experiment is planned. Precise regulations may vary, but obtaining informed consent generally requires written verification (the subjects' signatures) that subjects are aware that the experiment is to occur and that they have received enough information about the nature of the tasks, the procedures to be followed, and the potential risks to adequately determine if they wish to participate. Only one of the ABSEL Proceedings papers reviewed indicates that students had prior knowledge that different sections of a course were to be taught differently [24]. These students apparently had a sufficient informed opportunity to select the section they wished to enroll in. Although signed documentation apparently was not obtained, this additional step could have been taken.

Only three of the reviewed papers are concerned with direct manipulation of the psychological environment of students participating in simulation or experiential learning [1, 4, 9]. These papers raise the most serious questions about the psychological and social risks that may be relevant to instructional methods. One study deliberately manipulated the amount of information available for decision making in a game environment [1]. Another systematically assigned half of the students to a role which they had expressly stated they did not prefer [4]. And, the third paper discusses the uses of "instructed participants" in small group discussions who play roles designed to manipulate the interactions of others in the groups [9]. All three

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manipulations have as a purpose the achievement of high levels of frustration or tension in at least some of the participants. From a measurement point-of-view, the greater the levels of frustration or tension created, the greater the probability of obtaining a definitive statistical conclusion. From an educational point-of-view, it is not at all clear that the results are consonant with valid teaching objectives. One could also question the extent to which a business faculty member is competent through training or experience to engage in such manipulations. Obtaining levels of psychological stress that students can tolerate is not a trivial problem, and the potential long-term consequences are not readily predictable.

POLICY ISSUES

ABSEL members are encouraged to consider and debate the rights of students who participate in simulation games and experiential learning exercises in purely instructional as well as research environments. The fact that an instructor does not contemplate writing a research paper on any manipulations he might introduce in the classroom may remove the exercise from the responsibility of a human subjects review committee, but a possibility of psychological or social injury might still be present.

Major policy questions are:

1. Under what circumstances and to what extent should students be informed before-hand about the fact of exercise, its purposes, procedures, and potential risks?
2. What types of treatments or manipulations require written informed consent by students (which includes an explicit right not to participate without penalty)?
3. What types of treatments or manipulations should be discouraged or deemed inappropriate?
4. What types of treatments or manipulations are likely to create conflicts between research objectives and teaching objectives, and how should such conflicts be resolved?
5. What standards and procedures should be employed to “debrief” students who have participated in simulation games or experiential exercises?

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