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## ISSUES IN THE ORGANIZATIONAL APPLICATION OF SIMULATION AND EXPERIENTIAL MATERIAL

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ABSTRACT

The issues which affect the design and application of experiential and simulation materials in an educational context have been widely examined if not clearly defined. However, when these same materials are applied to a variety of management training sessions, certain problems appear which may significantly affect the administration of these sessions, and more importantly, the outcome. This paper speculates on some of these problems, presents several examples from a variety of experiences and postulates several guidelines for the application of materials to management training situations.

*It is early on a Tuesday morning at an 8:00 a.m. Management Development Session for the top management personnel of a small wholesale distributing firm. The eight to ten people attending this session are all key vice presidents reporting to the president of the company who is also in attendance. This is one of a long series of management training programs which has presented the participants with extensive information on the basic concepts of management and organizational behavior. The group has been exposed to lectures, guided discussions, films, cases and several structured experiences which allowed them to develop discussion points based on their own personal and/or company situations. It is a cohesive group, accepting of the training situation and familiar with the group leader who has been working with them throughout all the sessions.*

*The topic for this morning's session, to be followed by two or three other sessions in related areas, is the behavior of groups and group decision-making. Scheduled for this particular session is consensus seeking group decision-making problem, survival task similar in format to the NASA or Wilderness Survival exercise. The group leader is experienced in experiential exercises of this nature and is feeling very confident about successful session because of his successful application of this exercise in college classroom settings. The goal of the exercise, to expose participants to the group decision-making process and to demonstrate and create a discussion base for the topic of the individual versus group decision-making in terms of time and quality is clearly presented in the introduction and during the process of the activity. But the exercise fails. The participants leave the session without a clear discussion of the important decision-making kegs and the group leader leaves the building with a tremendous feeling of bewilderment. Whet went wrong? Why did this exercise which has worked so many times in the past fail so noticeably in this application?*

*It is Wednesday afternoon several months later, another seminar, another management training group, and a computer-based simulation. The conference attendees, a group of middle level bank managers are attending and participating in the Bank Management Simulation, BankSim. The computer model is an extensive, well developed computer simulation of a $500 million ban\*. The learning environment is conducive to the situation, pre-conference material is extensive and well documented, and the instructional staff is composed of banking officers with extensive practical experience and prior experience with the simulation package. The environment of five banks competing with each other for loan volumes and deposits is realistic and the majority of the participants are totally involved in the decision-making process.*

*One of the teams, however, is facing a difficulty in interpreting a staffing analysis provided as one of the computer outputs. Their decision to increase salaries did not result in a subsequent increase in personnel and an increase in efficiency as predicted. Instead, their "overstaffed and underefficient" position continued. Their concern is not with how the decision impacted on the results nor with how this would apply practically, it was understanding the computer model and registering complaints that 'the computer did this to us". The instructors, prepared to explain this type of situation, attempted to provide the participants with some understanding of the interaction of the model and how their decision did not achieve its desired result based on increasing volume and competitive activity. It did not work. The administrator was puzzled at the participants' continued refusal to accept a practical answer and their determination to concentrate on the computer model as the source of their difficulty. The management development program was a success, but the lingering question remains. Was this a failure in the use of a simulation? Was something missed in the application of the computer model to the practical world of management decision making?*

These two cases represent actual events in the organizational application of simulation and experiential materials. They represent problems faced by the individuals who take very successful material out of the classroom into a practical situation and find the results somewhat different. While the early history of simulations is based on organizational design and im-

plementation, the current literature concerning simulations and experiential material is based heavily on applications in an educational framework.

The issues which affect the design and application of experiential and simulation materials in educational context have been widely examined, if not clearly defined. Burns and Gentry [i3 and Schreier [2] have discussed various aspects of the experiential learning process in an attempt to clarify the process which occurs and the roles which the administrator plays in creating the learning environment. Flaherty L3] and Frazer [4] have also discussed the decision-making process involved in selecting and using simulation and experiential materials. However, these issues have been discussed in the framework of the business administration classroom. When these same materials are applied to a variety of management training sessions, certain problems appear which may significantly affect the administration of the sessions, and more importantly, the outcomes. The organizational use of experiential material requires a careful re-thinking of the goals and the manner in which it is conducted to insure successful application of simulation and experiential materials.

## EXPERIENTIAL EXERCISES

The example provided above, involving the group dec decision-making exercise demonstrates a typical problem in using experiential materials in a management training setting. In the organizational behavior area, many of the experiential exercises which have been developed deal with process Issues like group decision-making, group communication, leadership, and motivation. In the exercises, the problem develops an excellent focus on these process issues. Many times, however, this is done by developing a content which is not relevant to the specific topic of organizational behavior. In the author's experience, this seldom creates a problem for undergraduate students because of a willing acceptance, in most cases, of the learning environment.

Many of the exercises, conceived in the organizational psychology and educational psychology areas are perhaps more successful when used with psychology students than when applied in an environment of business administration students. In the business environment, this willing acceptance is not present to the same degree. Managers are placed in a management development program because of an executive decision that they are key people "on the go" or simply because management has decided that training" would be good for the management team. In these sessions, commitment to understanding the process issues involved is hampered by the irrelevant nature of the specific task.

The example involves the classic group decision-making exercise NASA and other survival exercises. In many organizational behavior classes, industrial psychology classes, and educational psychology classes this exercise is undertaken with a great deal of energy, enjoyment and understanding of the process. There appears to be some dissatisfaction when it is used in business administration courses. In a management training group, this dissatisfaction is highlighted. This phenomena is felt by many people who have used the consensus-seeking exercises. There is a feeling that the process of group decision-making has been explored but that something has been lost in the argument over the ability to light a match on the surface of the moon or the necessity of water purification tablets in a fresh water area. It appears that the participants are somewhat incapable of separating the contents of the process even when the facilitator is there to focus on the group decision-making task. The result is that the irrelevant content detracts from the focus on the process even though its original intent was to make the process stand Out in the mind of the participant.

This problem can be rectified by the development of exercises which maintain the same focus on process, but somehow change content to reflect a more appropriate base. One change suggested for the NASA type exercise has been use of basic motivation factors for blue collar workers [5]. This modification, which takes a survey on blue collar values and puts the results into a consensus-seeking decision process, gives the exercises both a content and a process focus. The items contained in the ranking process are shown below.

## WORKER MOTIVATION FACTORS

Seeing the results of their work

Chance to make a lot of money later on

Not too demanding job

Chance to use their minds

Interesting work

Not expected to do things not paid for

Job in growing field/industry

Good pay

Having a job that does not involve hard physical work

Change to develop skills/abilities

Recognition for a job well done

Socially useful work

Participation in decisions regarding job

Good Pension Plan

Not being caught up in big impersonal organization

Experience with this modified exercise shows that it demonstrates an even higher commitment to both elements of the task. The initial fear that the content would overwhelm the process proved to be unrealistic. This modification proved to have significant benefits in both the management development classroom and the business student classroom in that it allowed for introduction of a motivation topic that was not covered directly in class and still allowed for the primary focus on group decision-making. Business students found themselves highly involved in the content and the process of the exercise and the management development participants found themselves discussing motivational issues relevant to their particular company.

Another example of this content versus process problem is illustrated by an exercise which focuses on group roles. The exercise, entitled "Choosing a Color" [o] is a simple undefined task which focuses on group behavior roles such as initiator, information seeker, information giver, mediator and follower. The role play also includes an element of leadership behavior in that two participants are given no specific roles to play except that they are to behave in such a way as to be chosen the leader in a second phase of the exercise. It is an excellent and very quick way of demonstrating different group roles. However, while the ambiguity of the task is part of the goals in the exercise's original form the ambiguity is not accepted in the business applications of the task. The lack of

direction hinders the participants' focus on the behavioral roles. The practical nature of many business students and certainly the practical focus of participants in management training programs seems to destroy the successful application of this exercise. A revised edition of the exercise includes a modification which gives it some structure [7]. However, it is still not in the business framework, so again, like the revision to the NASA exercise suggested above, this exercise can be rewritten to provide employee relations role play in a relatively simple form which provides some content in addition to the focus on process. The situation and roles are shown below.

## MACHINE OPERATORS
### A Group Role Exercise

*SITUATION AND TASK:*

*You are member of a group of machine operators on Friday afternoon. At approximately 2:45 you discover that a flew in the raw material has caused break- downs on all the machines.*

*Your foreman is at corporate headquarters attending a meeting concerning proposed cutbacks in staff. You must decide what to do.*

*ROLE:*  *Informer*

*POSITION:*  *Stop the machines and perform general clean up work until the foreman returns.*

*ROLE:*  *Encourager*

*POSITION:*  *Support operators leaving.*

*ROLE:*  *None*

*POSITION:*  *None*
*(You have special knowledge that the group is going to be asked to select a chairman later in the exercise; you are to conduct yourself in such a manner that they will select you as chairman).*

*ROLE;*  *Gatekeeper*

*POSITION:*  *Support operators staying/or calling foreman.*

*ROLE:*  *Clarifier*

*POSITION:*  *We should call maintenance to fix the machines. Operators should leave.*

*ROLE:*  *Compromiser*

*POSITION:*  *Operators should stay until the machines are fixed.*

*ROLE;*  *Aggressor*

*POSITION:*  *Machines are broken, operators should leave.*

*ROLE;*  *Avoider*

*POSITION:*  *We should try to keep producing parts on the broken machines.*

*ROLE:*  *Initiator*

*POSITION:*  *We should call the foreman for directions.*

A third example of this situation is another exercise in the group process, communication area. This exercise is called Committee Meeting: Demonstrating Hidden Agendas and focuses on the underlying goals of participants in a meeting [8]. The exercise in its original form does have a specific task in mind and a specific content. In early applications of this exercise the author felt no need to change this content because the exercise appeared to work and achieve the goals of identifying hidden agendas. However, when the exercise was taken into the management training setting, the irrelevant nature of the content, a parent/teacher meeting over a work study program, seemed to overwhelm the focus on hidden agendas. Consequently, changes in this exercise were made to develop a discussion by members on a management labor committee concerning a job enrichment program to be implemented in the company. The roles remain essentially the same, the goals and task of the exercise remained the same, however, the content was changed to reflect the needs of the participants in a more relevant manner.

Implications

The results of these changes to the experiential exercises in organizational behavior and their applications in both the business classroom and management training settings, emphasizes several important factors in the design and use of experiential materials. The importance of introducing the exercises, the importance of properly conducting and debriefing the exercise can sometimes be undermined by failure of the materials themselves to present a problem which is personally motivating to the participants involved. Applications of all three exercises as discussed above demonstrated that the participants were able to focus not only on the process which provided excellent debriefing material, but also had a strong carry over in the content area. In the worker motivation modification to the consensus-seeking activity, the participants continued to discuss the content issues of motivational factors for young blue collar workers several weeks after the focus on group decision-making had ended. Several comments, however, indicated that they had also achieved closure on the issue of group decision-making, the extended time which it often takes and the possibilities for increased accuracy. In feedback evaluation reports, this exercise went from one which received several comments on how much fun it was and how enjoyable it was to an exercise that was both fun and thought provoking. Comments concerning the personal meaning of the decision were never provided in the earlier survival type exercises. It appears that giving the participants a personal stake in the decision is more important than simulating a personal survival task. The business administration student and the management training participants both perceived the issues of blue collar motivation to be personally important to them. Similar results were received by creating a supervisory problem in the group role task and by opening the issue of job enrichment in the hidden agendas exercise.

The issues which presented themselves in using these modified situations in company training programs were primarily concerned with the administration of the materials. In all cases the exercises consumed substantially more time than did the previous versions of the exercise which focused merely on the process. The consensus-seeking activity which can usually be conducted in a two-hour time period when using a NASA or wilderness survival type model, consumes a minimum of

50% more time when the task is made relevant to the participant. Similar increases in time demands were experienced with the group role and hidden agendas exercises. This forces an awareness on the part of the administrator to schedule these sessions differently and recognize the increased benefits of the content involvement in addition to the focus of the exercise on an organizational behavior process.

An equally important issue in the modifications to exercises of this nature is the need to more carefully debrief the exercise. The facilitator needs to identify and communicate to the students both the nature of the process and the content nature in an attempt to bring closure to the participants in both areas. In the examples cited above, this was possible by carefully introducing the exercise and clearly identifying the various issues at the conclusion. If care was not taken in the debriefing stage, this could cause the content to overload the process to some extent. The careful debriefing of the exercises is critical in this and all settings [9].

## SIMULATIONS

In computer simulations, a similar event occurs, but it is not related to the lack of content in the business administration classroom. The students who are experiencing, in many cases, their first simulation of a business world environment, find the focus on content delightfully refreshing, ultimately challenging, and if the results of their decisions are in any way what they expected, a very rewarding and enjoyable process. There are seldom, except with very introductory level simulation models, many complaints concerning the unrealistic nature of the computer model. In the organizational world, despite the complexity of some computer models, there appears to be some grumbling that will occur concerning the computer models in their ability to react the way the participants expect would them to act in the "real world". This situation requires additional behaviors on the part of the administrator to insure successful applications of the computer simulation process in organizational environments.

The situation cited above illustrates one possible result of this reaction of the participant to a computer simulation model. The model referred to, the Bank Management Simulation, is an extensive and well developed computer simulation. However, the comments of some of the participants were still based on challenging the realism of the computer model instead of focusing on the management decisions necessary to resolve the conflicts. In this particular situation, knowledge of the problem may be the most significant step to resolving it effectively in the management training situation. When the problem occurs, and it seldom does in this author's experience in the classroom, it is usually sufficient to admonish the student that this is a computer simulation and that he should not expect it to react exactly the way it does in the business world. In management training settings, the sophistication of the participants is often equal or above that of the administrator, creating a possibility of a theoretical argument which would not be beneficial to the goals of the learning experience. Awareness that the problem might occur and a good reaction when it does occur may be the solution. Careful introduction of the simulation including some of its limitations and clearly communicating to each of the participants the nature of the simulation activity and the learning objectives of the program, helps reduce the possible Objections which participants may bring up concerning the

model. More importantly, if and when the objections occur, it is critical that the instructors or the administrators sit down with the participants in an attempt to explain what is happening in terms of the content, avoiding references to the process issues which may be involved. References can later be made to the computer model if the participant shifts his or her focus back to the content area. Obviously, this problem may reflect weaknesses in the computer simulation model. But often, it is the preconceived attitudes of the participants and their affinity for getting caught up in the game. The administrator must be sensitive to the role that he or she is playing to moderate these interactions and see that they are directed in the most beneficial way toward the goals of the educational experience.

The computer simulation provides another opportunity for merging the classroom situation with the management development setting. In the classroom, the simulation activity is usually debriefed in terms of a specific content that is being taught. In the management setting, there is usually a request from the participants to debrief the simulation decision-making process in terms of its relevance to the day-to-day operating problems of the participants. This requires a different set of skills on the part of the administrator which encompasses more than the administrative ability for the computer simulation. It also requires that the administrator or personnel available through the simulation are knowledgeable about the content area and its relationships to actual business decision-making situations.

## IMPLICATIONS

These examples demonstrate some of the differences which occur in the use of simulation and experiential materials in an organizational setting. It appears that they focus around several key issues.

1.  Relevance. Materials devoted to teaching process, frequently in the organizational behavior area, need to be developed in a way which are personally motivating and/or relevant to the participants. This makes it essential that materials developed for these types of application focus on issues which are related to the participant's own work environment. While this may detract from the process focus of the exercise, the careful administration and debriefing will allow both content and process to be brought out in the educational context. As noted above, it may also cause problems in scheduling and introducing the exercise.

2.  Introduction. The learning environment of the college student is one in which the motivating factors are clear if not always demonstrated by the student. Individuals are usually accepting of the teaching and learning environment whether or not they are actively motivated. This makes them more willing to participate in experiential exercises than their organizational counterparts. The members of a management training group are motivated in many of the same ways as the business administration student, but they are also more likely to be motivated by specific on-the-job problems. They are looking to the management training sessions for prac-

tical solutions to situations they have encountered. The experiential learning model is particularly conducive to this situation, yet it is perhaps not applicable in the same ways as in the classroom. Modifications to exercises and differences in administration and design of materials may be essential. One of these is in the area of introduction. Even though the management training session may be a cohesive learning unit experienced in educational activities, the need to clearly explain the goals and objectives of an experiential exercise are critical. For many participants, the experiential model may be new to them, particularly when dealing with management executives who came up through non-business type degree programs.

3. Debriefing. The critical importance of the debriefing process is well documented and it is essential that it be repeated here. Management executives do not accept the purposes of an exercise with the same willingness that students do. It is important that the administrator of an experiential exercise develop specific debriefing material which points out the relationship between the exercise and the day-to-day world of the business executive. This can be done by preparing more specific handouts and by being more specific in describing exactly what occurred in the session. It is possible that more directive teaching may be needed in debriefing exercises for management groups than the typical undergraduate management student.

4. Beyond the model. In computer simulations, it seems that the ability to go beyond the computer model is important when using simulations in an organizational setting. The members of the management teams demand that examples which come to their minds while solving the simulated problems be dealt with. This requires experienced instructors and administration staff that are capable of resolving conflicts between the simulation and the participants' practical experience. The discussion of these issues makes for a much improved learning environment and a very valuable teaching tool. Only when the administrator is caught unaware of these possibilities does the learning environment suffer.

## CONCLUSIONS

The use of simulation and experiential material in organizational settings is perhaps a new frontier for simulation and experiential research. There are many questions that have been researched in the educational environment which may be replicable in the organizational environment. Research on learning outcomes, administrator role and participant reaction is certainly possible in all areas of experiential learning and simulation. The organizational world provides an excellent environment for the use of experiential materials and the development of effective administrative procedures. In an earlier ABSEL article, I concluded that the decision to use simulations and experiential materials was something that was perhaps not measurable [10]. 1 suggested that many professors choose simulations because they feel good. In the organizational setting, simulations and experiential materials can also feel good.

## REFERENCES

[1] Burns, Alvin C. and Gentry, James W., "Some Thoughts on a Theory of the Use of Games in Experiential Exercises, New Horizons in Simulation Gaines and Experiential Learning, Proceedings of the Fourth Annual Conference of the Association for Business Simulation in Experiential Learning, pp. 187-194.

[2] Schreier, James W., "The Role of the Administrator in Experiential Learning and Simulations," New Horizons in Simulation Games and Experiential Learning, Proceedings of the Fourth Annual Conference of the Association for Business Simulation and Experiential Learning, pp. 177-186.

[3] Flaherty, Ross A., "Simulation: Should I or Shouldn't I?,' New Horizons in Simulation Games and Experiential Learning, Proceedings of the Fourth Annual Conference of the Association for Business Simulation in Experiential Learning, pp. 409-414.

[4] Frazer, J. Ronald, 'Educational Values of Simulation Gaming," Exploring Experiential Learning: Simulations and Experiential Exercises, Proceedings of the Fifth Annual Conference of the Association for Business Simulation and Experiential Learning, pp. 269-275.

[5] Cohen, Allan, Fink, Stephen, Gadon, Herman, and Willits, Robin, "The 'Blue Collar Blues' Exercise, The Organizational Behavior Teaching Journal, Volume II, Number 2, pp. 25-28.

[6] "Choosing A Color: A Multiple-Role-Play,' A Handbook of Structured Experiences for Human Relations Training, Volume 1 (La Jolla, California, 1974), pp. 56-64.

[7] Ibid., pp. 63-64.

[8] "Committee Meeting: Demonstrating Hidden Agendas, A Handbook of Structured Experiences for Human Relations Training, Volume 1 (La Jolla, California, 1974), pp. 36-44.

[9] Hunsaker, Phillip L., "Debriefing: The Key to Effective Experiential Learning,' Exploring Experiential Learning: Simulations and Experiential Exercises, Proceedings of the Fifth Annual Conference of the Association for Business Simulation and Experiential Learning, pp. 3-4.

[10] Schreier, James W., 'Experiential Learning: If It Feels Good, Do It," Computer Simulation and Learning Theory, Proceedings of the Third Annual Meeting of the Association for Business Simulation and Experiential Learning, pp. 68-70.