

Computer Simulation and Learning Theory, Volume 3, 1976

STUDENT SELF-DEVELOPMENT

Planning From Simulation Experience Inputs

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Introduction

The purpose of this project is to explore the potential value of complex simulation inputs for use of students in making self-development plans.

An overlooked area in formal education programs is the area of student self-development planning on a continuing basis. Management curricula tend to have as their objectives the student's learning of theories and skills integrated with practice opportunities in which he can develop the use of these theories and skills. The culmination of the curriculum program is viewed as a discreet point in the individual's managerial training and development, the continuation of which, if it occurs, will be the responsibility of his employer.

Traditionally, progressive organizations have had management development programs of varying degrees of sophistication and almost always with the objective of developing the individual's skills and talents to fit the organization's present or future needs. In most companies this meant that managerial employees exhibiting talents were developed and promoted so that the organization could optimize the use of these talents. Again, the individual's input to this process was limited with promotions and transfers being determined unilaterally by the management hierarchy's concept of fitting the individuals to the organization's needs.

The latest generation of managers have begun to resist this unilateral development design concept. The idea of individual input into organization planning for managerial development is now being accepted by some of the more progressive organizations. However, it would appear that if a manager wants to maximize his input and influence in his developmental progress he must be willing to assume the major portion of the responsibility for this development and training. This concept requires several important changes from the present organization dominated managerial development planning, including: (1) the management development environment must be viewed as being larger than the organizational bounds of the present employer, or even of that of the employer's industry; (2) the standards or goals that measure the development of management skills must be understood by the individual; and (3) the individual must be able to identify the developmental activities needed to meet his goals and to construct a continuous, viable long range plan for his development. It is these last two areas that college curricula need to address. While some management curricula expose the student to behavior and skill analysis, few address the subject of continual long range planning for self-development. In many cases this function is left to college counseling centers where the focuses on identifying potential compatibility of aptitudes and vocations.

The Self-Appraisal Project

One of the major goals of complex business simulations is to provide a realistic learning environment in which students can integrate functional knowledge

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and behavioral process in a dynamic situation. It would seem logical that this learning situation should be exploited to provide the student with inputs to his development as a manager. This is the purpose of the project described below.

The instruments used in the project were adapted from those presented in a self-appraisal exercise by Vaughn and Deep in their Program of Exercises for Management and Organization Behavior, Glencoe Press, Beverly Hills: 1975.

Students in The University of West Florida MBA Program participate in Carnegie-Mellon's Management Simulation during their last two quarters before graduation. They operate on-going firms in the simulations in teams of 3, 14, or 5 members. This simulation is both complex and determinant and requires a wide range of decision inputs in a competitive business environment. The student's grade is based 50% on individual components and 50% on group activities. Of the latter, 30% is determined by the team's business performance relative to the other 11 firms in the simulation. A peer rating system is used for each team so that its members can evaluate participatory effort on the part of each team member.

Most teams choose a functional organizational form but few follow it completely in producing their decisions. Most decisions are reached on a team basis after the member with the functional responsibility does the basic calculations and makes a basic recommendation. This team oriented activity provides the opportunity for each team member to exhibit and practice both functional and behavioral skills. It is in this situation that the self-appraisal project was conducted.

Toward the end of the academic quarter each team member was given the self-appraisal instrument with instructions to rate his performance, with as much objectivity as possible, in each of the attributes listed. (The rating instrument is reproduced in Figure - 1). After this was completed the student was asked to go through the list of performance attributes again and to determine the level of performance that he considered to be most desirable for that attribute. The next step was to compare his rating of his actual performance levels with those that he established as the desirable level of performance. The differences and direction of deviation were calculated for each attribute. The student was then asked to identify the two performance attributes with the largest deviation between actual and desired performance levels. The completed instruments were then submitted to the instructor.

In the next part of the project the student was given the same instrument and asked to rate each of his teammates on their performance within the simulation. These were collected and distributed back to the rated student. He was asked to average his teammates' ratings of his performance for each attribute and to compare the average with his desired level of performance for that attribute. Again the two attributes with the greatest deviations were to be identified.

The first section of the written project for each student was to analyze at least two of the performance attributes that indicated the largest discrepancy from his self-appraisal as well as the two attributes with the greatest deviations from the performance ratings by his teammates. The purpose of the analysis was to attempt to identify the factors that were contributing to performance levels which were lower than those desired by the student. The second portion of the project was to develop a continuing long range self-development plan that would enable the student to improve his performance in the areas identified as weaknesses.

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FIGURE 1¹

STYLE OF LEARNING AND PROBLEM-SOLVING

| TENDENCY TO SEEK OUT LEARNING OPPORTUNITIES | | |
|--|-------------------|---|
| Content to wait | 1:2:3:4:5:6:7:8:9 | Always searching _____ |
| BREADTH OF FOCUS | | |
| Intensive narrow focus on given problems | 1:2:3:4:5:6:7:8:9 | Extensive search for solution on given problems _____ |
| SPEED OF DECISION | | |
| Defer judgment as long as possible | 1:2:3:4:5:6:7:8:9 | Decide as quickly as possible _____ |
| OBJECTIVE VS. INTUITIVE | | |
| Rely exclusively on feelings | 1:2:3:4:5:6:7:8:9 | Rely exclusively on facts _____ |
| IMPULSIVITY | | |
| Think before I speak | 1:2:3:4:5:6:7:8:9 | Speak before I think _____ |
| IMITATION VS. SELF PROBLEM-SOLVING | | |
| Always solve problems for myself | 1:2:3:4:5:6:7:8:9 | Learn exclusively from others _____ |
| PERSISTENCE | | |
| Give up too quickly on tough problems | 1:2:3:4:5:6:7:8:9 | Never give up _____ |
| SELF PROBLEM IDENTIFICATION | | |
| Never see myself as part of the problem | 1:2:3:4:5:6:7:8:9 | Always see myself as part of the problem _____ |
| INTERNAL-EXTERNAL FOCUS | | |
| Completely controlled by my environment | 1:2:3:4:5:6:7:8:9 | Completely controlled by my inner thoughts _____ |
| REACTIONS, SUCCESS-FAILURE | | |
| Stimulated most by reproof, failure, negative feedback | 1:2:3:4:5:6:7:8:9 | Stimulated most by praise, success, positive feedback _____ |

¹J. A. Vaughn & S. D. Deep. Program of Exercises for Management and Organization Behavior, Glencoe Press, Beverly Hills: 1975.

FIGURE 1 (cont.)

STYLE OF RELATING TO OTHERS

| | | |
|--|-------------------|-----------------------------|
| ABILITY TO LISTEN TO OTHERS WITH UNDERSTANDING | | |
| Not at all able | 1:2:3:4:5:6:7:8:9 | Completely able |
| <hr/> | | |
| WILLINGNESS TO DISCUSS FEELINGS WITH OTHERS | | |
| Completely unwilling | 1:2:3:4:5:6:7:8:9 | Completely willing |
| <hr/> | | |
| AWARENESS OF THE FEELINGS OF OTHERS | | |
| Completely unaware | 1:2:3:4:5:6:7:8:9 | Completely aware |
| <hr/> | | |
| UNDERSTANDING WHY I DO WHAT I DO | | |
| No understanding | 1:2:3:4:5:6:7:8:9 | Complete under- standing |
| <hr/> | | |
| TOLERANCE OF CONFLICT AND ANTAGONISM | | |
| Not tolerant | 1:2:3:4:5:6:7:8:9 | Tolerant |
| <hr/> | | |
| ACCEPT AFFECTION AND WARMTH FROM OTHERS | | |
| Uncomfortable | 1:2:3:4:5:6:7:8:9 | Comfortable |
| <hr/> | | |
| ACCEPT COMMENTS ABOUT MY BEHAVIOR FROM OTHERS | | |
| Reject | 1:2:3:4:5:6:7:8:9 | Welcome |
| <hr/> | | |
| WILLINGNESS TO TRUST OTHERS | | |
| Completely suspicious | 1:2:3:4:5:6:7:8:9 | Completely trusting |
| <hr/> | | |
| ABILITY TO INFLUENCE OTHERS | | |
| Completely unable | 1:2:3:4:5:6:7:8:9 | Completely able |
| <hr/> | | |
| RELATIONS WITH PEERS | | |
| Wholly competitive | 1:2:3:4:5:6:7:8:9 | Wholly cooperative |
| <hr/> | | |

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FIGURE 1 (cont.)

STYLE OF MANAGING

| | | |
|--|-------------------|---|
| RISK TAKING UNDER UNCERTAINTY | | |
| Extremely cautious | 1:2:3:4:5:6:7:8:9 | Extremely adventuresome _____ |
| DELEGATION | | |
| Prefer to solve problems myself | 1:2:3:4:5:6:7:8:9 | Prefer to let others solve problems _____ |
| CONCERN FOR WELFARE OF SUBORDINATES | | |
| No concern at all | 1:2:3:4:5:6:7:8:9 | Complete concern _____ |
| RELATIONS TO HIGHER AUTHORITY | | |
| Always rebel against authority | 1:2:3:4:5:6:7:8:9 | Always depend on higher authority _____ |
| TIME PERSPECTIVE | | |
| Short-run maximizer | 1:2:3:4:5:6:7:8:9 | Always consider the long range view _____ |
| INDIVIDUAL GROUP DECISIONS | | |
| Prefer group decisions | 1:2:3:4:5:6:7:8:9 | Prefer individual decisions _____ |
| CONCERN FOR RULES | | |
| Disregard whenever they get in the way | 1:2:3:4:5:6:7:8:9 | Obey completely _____ |
| POLITICAL VS. PARTICIPATIVE | | |
| Rely on political alliances, deals, bluff | 1:2:3:4:5:6:7:8:9 | Rely on open communication, involvement, trust _____ |
| USE OF AUTHORITY IN GETTING WORK DONE | | |
| Rely on persuasion and/or personal skill and knowledge | 1:2:3:4:5:6:7:8:9 | Rely on my position and power _____ |
| TASK VS. HUMAN RELATIONS CONCERNS | | |
| Primarily concerned with getting job done | 1:2:3:4:5:6:7:8:9 | Primarily concerned with maintaining good relations _____ |

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The project was completed by 140 students during one quarter and repeated two quarters later by an additional 51 students.

Review of Project Results

A general summary of these projects indicate that the students were able to justify their desired levels of performance on a theoretical basis as well as from past experience. Many were able to discuss openly the factors they considered important contributors to their deficiencies. However, few were able to construct viable long range self-development plans to correct these weaknesses.

Project Data

An attempt to deal statistically with the performance rating data proved fruitless. The reader will recognize that the construction of the performance attributes statements make the establishment of prescriptive levels difficult. Secondly, the simulation experience 'ends itself to a situational analysis, which differ from team to team. Finally, the performance standard for each attribute, the student's desired level of performance, is personal, in that the student is rating the level of performance appropriate for him and his perceived role in the situation. These factors preclude the use of statistical analysis and comparison of the performance rating data.

However, a review of the project data revealed some interesting points. Only about 10% of the peer ratings indicated significant behavior discrepancies in the same attributes in which the individual rated himself as most deficient. In only one case did both of the largest deviations from preferred performance levels coincide for peer and self-appraisals. In the other instances just one of the attributes was rated deficient by the individual and his teammates. There are several factors to be considered when attempting to understand this information. One has to do with the magnitude of the rating deviations from desired levels. In several cases the differences between the larger two deviations of peer ratings from preferred levels were only fractions of a point, when averaged, from the next largest deviation. Thus in some cases the degrees deviation differences were relatively small.

Another consideration is the distribution of major discrepancies perceived by students among the three classification on Vaughn and Deep's instrument. Nearly half of the major performance discrepancies as perceived by self-appraisers were in the category of "Relations-to-Others." About 40% of the peer rating major deviations occurred in the category of "Managerial Style." Apparently the students were more sensitive to their relationship to teammates within the simulation than they were to the managerial style they exhibited. This would indicate the feedback within the behavioral environment of the simulation is more readily perceivable on interrelationships than on the affect of one's managerial style on other team members. It could also have a bearing on the willingness of team members to be critical of managerial styles in the normal give-and-take of the group while they are willing to provide this input on an anonymous peer rating instrument.

It was also interesting to note that among the thirty (30) performance attributes there were no single attributes that stood out as major discrepancies from either the point of view of the self-appraiser or the peer rater.

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The largest response to a major discrepancy perceived by self-appraisers was "Listening Ability," about 9%. "Accepting Conflict," "Ability to Influence" and "Impulsivity" accounted for about 7.5% each. The largest responses for performance discrepancies by peer raters came in the attribute "Willingness to Discuss Feelings," about 9%. "Individual or Group Decisions" was the second most deficient attribute at about 8% of the responses in the peer ratings.

The Project Experience

Most of the informal student input about the project indicated that they approached the project with something less than maximum enthusiasm but by the time they had completed the project they felt it had been a very valuable experience. A small minority felt the project was little more than a farce. Quite a number of students were surprised by the peer rating input of their teammates. When the unexpected peer responses were critical they forced the rated student to re-evaluate his behavior. Another common response from students was that their peers often rated them nearer their desired level of performance than their own estimate. Some students accounted for this by suggesting team members didn't have enough time to observe their behavior in the simulation, or that they were generous because of a halo effect in the rating. A few gave thought to being overly conservative in their judgement of their own behavior. In a few cases the peer rating of discrepancies was in the opposite direction of the self rating causing a large discrepancy for the attribute and considerable concern for the self-rater.

For the most part the students were able to analyze their behavior in areas of large discrepancies and to suggest causes for their particular behavior patterns. They often related their current patterns of behavior to earlier experiences and other existing situations as well as to the simulation environment. The analysis indicated to several of the students that the peer ratings were not responses to their exhibited behavior but rather to an isolated incident or a misinterpretation, etc.

A common statement in the analysis section of the project was that the simulation gave them the opportunity to try behavior change processes that had been initiated in our earlier O. D. course in the MBA curriculum.

In the project design the analysis section was supposed to lead the student to the self-development planning stage. After identifying behavioral deficiencies and determining the possible causes of the deviations the students then should be able to devise a long range plan that would bring about changes that the individual desired.

This section of the project was uniformly weak among the students' papers. There appeared to be two dimensions to the students' inability to construct long range plans for self-development. A noticeable difficulty was evident in identifying the basic planning elements and applying them to a process for personal development. The instructor was shocked by the casual attitude of the students toward such basic planning elements as goal definition, strategy formulation, implementation, performance measurements, deviation identification and investigation, and entry into a revision cycle. A large portion of the plans dealt solely with strategy formulation stage and some of these were extremely weak.

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A few of the plans dealt with the strategy formulation and implementation elements in a more thorough manner and proposed a specific plan including alternatives for improving their behavioral skills.

In considering the causes of the weakness evidenced in this dimension of the self-development plan the instructor identified three possible problems: (1) the student's lack of knowledge about the basic planning process; (2) his inability to apply the planning process elements to a behavioral situation; and (3) a lack of enthusiasm for the entire project.

The project was assigned a second time two academic quarters later. The students in this group had not been involved in the previous self-development project. They were instructed to review the basic planning process before they began the project. (See (1) above.) In addition the grade weighting of the project was increased in an attempt to generate more enthusiasm. (See (3) above.) The planning section of these students' project was improved in comparison with the first group. More of the plans contained performance measurements and feedback elements but they still lacked a comprehensive wholeness that would provide the student with a viable long range self-development plan.

Some conclusions drawn from this aspect of the project are: (1) while our students receive instruction in organization development and behavior analysis they lack the knowledge and skills to make a practical application of these to their own self-development; and (2) our students are unable to apply the long range planning process to a specific behavioral situation.

A second dimension of the long range self-development planning process relates to the body of theory and knowledge related to the behavior change process. Few students demonstrated any knowledge about these theories or evidence of attempts to research the field for application to their self-development plan. While many could analyze their behavior in terms of Likert, Maslow, etc., few saw the importance of behavioral change theory to accomplish their individual self-development goals. Additionally, goal definition in specific terms was rare among the projects. Most students were satisfied with a vague objective of some level of improvement over the present state. Performance measurements to check change progress was omitted from most of the projects. Evidently, students were counting on an intuitive measurement of their progress. However, one student planned a feedback log to record in diary fashion his progress toward behavior goals. Another planned to use the peer rating instrument of the project by periodically asking his subordinates in his real world job to rate his performance. But such specific performance measurement elements were uncommon.

The conclusion drawn from the projects related to behavior change elements of the plan is that the student population in our MBA program have little knowledge about this field or about its application to their on personal goals.

Summary

This self-development project generated considerable informal comments from the students. Most felt that while they began the project with considerable apprehension that it was interesting and informative. (Two students used their paper subsequently as part of their performance appraisal sessions in their real world jobs.) As managers desire to have a more significant input into their career development plans they will be required to be responsible for, and gain knowledge and skills in managerial improvement goal definition and the methods for reaching these goals. The complex business simulation offers the student an opportunity to use inputs from team members as well as his own experiences in

the simulation to determine and implement a plan for managerial self-development. In addition, the results can provide valuable inputs to those that are responsible for designing management curricula.