Effects of Scored vs. Unscored Programmed Simulations on Satisfaction and Performance in Management-Oriented Computer-Assisted Instruction

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ABSTRACT

Effects of Scored vs. Unscored Programmed Simulations on Satisfaction and Performance in Management-Oriented Computer-Assisted Instruction

Susan M. Francis

Are managers more satisfied when scores are presented to them in programmed simulations than when no scores are presented in simulation designed as CAI exercises? What effect, if any, does managers' grade level have on their satisfaction with such exercises? In this study 36 managers of low (17) and high (19) Hay grade levels completed scored and unscored versions of a programmed simulation of a staff performance appraisal. Results on a Likert-scale mechanism did not increase satisfaction; nor did it enhance performance on the multiple-choice questions constituting the programmed simulation exercise.
ACKNOWLEDGEMENT

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TABLE OF CONTENTS

1 Introduction
   Context and Statement of the Problem 1
   Literature Review 5
   Hypotheses 11
   Operational Definition of Variables 14

2 Method
   Subjects 17
   Design 17
   Apparatus and Experimental Materials 18
   Procedure 21

3 Results 24

4 Discussion 29
   References 34
   Appendix 1 36
   Appendix 2 42
   Appendix 3 46
   Appendix 4 48
**LIST OF TABLES**

**Table 1** - Means and Standard Deviations of Number of Questions Correct for Groups Differing in Managerial Grade Level and Type of Programmed Simulation  
Page 24

**Table 2** - Means and Standard Deviations of Questionnaire Scores for Groups Differing in Managerial Grade Level and Type of Programmed Simulation  
Page 26

**Table 3** - Mann-Whitney U Values for Groups Differing in Managerial Grade Level and Type of Programmed Simulation  
Page 28
LIST OF APPENDICES

Appendix 1 - Questionnaires (Scored, Unscored), 36
Appendix 2 - Questionnaire with absolute frequency of responses 42
Appendix 3 - Hay System of Professional Staff Grading 46
Appendix 4 - Printout of "Harvey Hornblower", Introduction and Module 1 48
1 INTRODUCTION

Context and Statement of the Problem

There is increasing use of simulations and games in Computer-Assisted Instruction (CAI) for management training. This is partly due to the greater availability of micro-computers with enough memory to accommodate instructional software including calculation, storage and display of scores. In addition, training developers may choose from commercial software or develop their own CAI exercises using course languages and systems.

One form of management training exercise is the programmed simulation, popularized by Erwin Rausch of Didactic Systems Inc. (Sykes, 1979). With the advent of the micro-computer it has become easy to score each question in the simulation exercise and to display scores to participants not only at the end, but also during the course of the exercise. Some designers of CAI programmed simulations have already taken advantage of this capacity. However, the practicing instructional technologist will take care in using such a technique
unless it can be shown to be of instructional value.

In this study, the author addressed the problem of determining such instructional value by comparing a visibly scored ("scored") with an invisibly-scored ("unscored") programmed simulation to discover whether feedback scoring had a positive effect on satisfaction and performance. The "Harvey Hornblower" exercise, a computer programmed simulation, deals with the subject of "performance appraisal", a topic familiar in theory and practice to most managers in large organizations.

A programmed simulation can be usefully classified as a definitive versus a probabilistic game model (Elgood, 1981). The unscored version of the exercise is not technically a game, and this distinction will be dealt with later. However, the value of Elgood's analysis lies in the identification of the key characteristics of definitive models. In a definitive model, "the decision-result mechanism is direct, constant and rigid. It may be operated by submitting decisions to a set of rules, or a computer program... It may be handled in numbers or words, but it always gives the same output in response to the same input" (Elgood, 1981). Definitive game models include:
conventional model-based games, in-basket exercises, puzzles, mazes, conceptual games, enquiry studies, encounter games and programmed simulations. In particular, a programmed simulation is an exercise that begins with a situation or problem, offers learners a choice of decisions, then briefly discusses each decision taken, either revealing the correct answer or allowing the learner a second try (Elgood, 1981).

In consideration of the nature of managerial subject matter (in this case, performance appraisal) and of the target learners (managers), the researcher questioned the appropriateness of using point "pay-offs" with the intention of increasing satisfaction and performance. For this audience and this subject matter, it seemed plausible that an unscored programmed simulation might be just as effective or even more effective in achieving these goals. The option of scoring raises several questions. Does a requirement to score points offend managers, particularly those with years of experience at the task, thus possibly decreasing their satisfaction and performance? Might a scoring mechanism have a negligible effect on their attitudes? Or, do points function as some designers intend, involving participants more fruitfully in the
learning process?

The foregoing questions have implications for the instructional systems designer who, according to Romiszowski's (1981) heuristics, has already defined the problem (level one analysis), selected instruction as the solution (level two), and is then faced with decisions regarding media and strategy (level three).

Putting the issue of cost aside, the decisive criterion for the use of a particular teaching strategy should be that it achieves the designer's objectives more effectively than any other method. Assuming that the designer has chosen CAI as the medium and is faced with deciding between a scored and an unscored programmed simulation strategy, this criterion should apply. Therefore, a visible scoring mechanism would be warranted only if it proved more effective in achieving the ranked goals of, for example, increasing learner enjoyment (1) and enhancing performance (2).

A practical concern for assessing the effectiveness of using scoring in such exercises engendered these research questions: What is the effect of scored versus unscored programmed simulations on the satisfaction of managers? Do readily-measured attributes of managers,
such as managerial grade level, make a difference in the effectiveness of either technique?

**Literature Review**

It is appropriate to begin by locating the exercises under study in the context of simulation/game literature. As with many other areas of educational technology, simulation/game terminology is still in the process of being standardized. In order to make sense of this particular research problem in the context of available literature, it is useful to distinguish between games, simulations and simulation games, as represented below:

```
  Simulations
     /            /
    /              /
Simulation  Games
     /            /
    /              /
   Games
```
For the purpose of this study, a simulation is defined as "anything which simulates or models reality" (Shirks, 1975). The unscored version of the Harvey Hornblower exercise models the reality of the interactive process of performance appraisal. Thus it is a simulation. In addition to modeling reality, simulation/games incorporate some key characteristics of games. A game can be succinctly defined as an "activity in which people agree to abide by a set of conditions in order to create a desired state or end" (Shirks, 1975). Games may or may not be contests, the essence of which is competition. The scored exercise simulates performance appraisal and exhibits the necessary defining characteristics of a game. Therefore, it is a simulation/game. In addition, it may be thought of as a contest between the learner and himself (his previous score), or between the learner and the computer program which drives the exercise.

A commonly-cited justification for using simulation/games is their ability to motivate learners (Cherryholmes, 1966; Tansey and Unwin, 1969; Seidner, 1976). Mitchell (1982) states a rationale for using
games in preventing or at least delaying boredom, citing as a prerequisite to successful learning "sufficient involvement with the subject matter to pay attention and respond. Burke (1982) notes: "If the objectives of a CAI lesson can be accomplished with a gamelike approach, the motivation of the students can sometimes benefit greatly...increasing students' affective involvement in the lesson, thereby possibly increasing learning and retention."

How is motivation effected in games? From a behaviorist point of view, one plays a game to win points, counters, grades, admiration, or other extrinsic rewards. Coleman's (1967) research within the American school system reflects the view that the student is already motivated to learn and that "winning is the most highly relevant goal" when playing an instructional game.

Cognitive and humanist theorists offer a different perspective. For example, Bruner (1960) stresses the importance of intrinsic motivation "resulting from the satisfying process of retention, retrieval and mastery of the subject matter". In their study on pay-offs and motivation, Frank and LeCavalier (1982) found that
social science students tend to prefer "intrinsic rewards related to the subject matter of the games" to "extrinsic rewards" such as grades and approval of professors.

Clearly, the ways in which affective involvement and performance are enhanced in simulations, games and simulation/games are still at issue and answers may emerge from further research.

This study addresses the general need cited in the simulation/game literature for research on the effect of games on "different target populations, with different levels of sophistication, for different subject matter, so that some progress may be made toward agreement on which differences figure in the practical application of this instructional technique" (Twelker, 1971). Fletcher (1968) calls for research that examines problems using two versions of the same game which differ in one important way only, using dependent variables such as "motivation, interest, learning and attitude change". Seidner (1976) discusses the motivational qualities of simulation/games. Yet few studies have investigated differences in the level of affective involvement or satisfaction as well as
performance generated by simulations versus simulation/games.

In particular, this study addresses the advice that the type of reinforcement used in CAI simulations should be "geared to the students' needs and be perceived by students as satisfying" (Chambers and Sprecher, 1983). Research indicates that an appropriate use if simulation/games is to motivate reticent learners (Cowan, 1974; Mitchell, 1982). However, anti-boredom measures such as the requirement to score points may be wasted on certain target learners, particularly those already interested in the subject matter. It was hypothesized that this is the case for managers engaged in management-oriented CAI, and even more so for subject matter such as performance appraisal.

Megarry (1978) warns of the danger that a game's competitive element may become excessive and distracting, thus subverting the direction of the motivation. In this study, managers competed against their previous scores or against the computer program. It was possible they could become so preoccupied with scoring points that they would lose sight of the
instructional goal. At the very least, the requirement to score points was expected to prevent them from exploring freely the consequences of deliberate wrong answers. This conflicts with the objective of discovery learning in simulation exercises, the value of which lies in allowing participants to see the consequences of different input values.

On important factor influencing motivation is knowledge of results, or "KR", which can function as an incentive to learning. Annett (1967) describes extrinsic KR, or augmented feedback, as "the addition of information regarding the standard of performance". This might include time on target, scores and statements about how well the learner is doing. A central notion in his analysis is that knowledge of scores is not essential, but the informative feedback loop must always remain intact. In other words, learners must know whether their answers are correct or not and why. Both programmed simulations used in this study incorporate informative feedback loops. However, the visibly scored game-like version adds a score for each question answered.

At this point, a note about the choice of
managerial grade level as an independent variable may be appropriate. Several studies show significant effects of learner personality on attitudes to and performance on CAI exercises (Snow, 1977; Pratt, Uhl and Little, 1980). However, because of potential legal issues of discrimination, personality tests are becoming less widely used in managerial hiring. The instructional designer working in a business environment turns to more acceptable and more readily measured learner attributes as indicators for design strategy. The Hay system of grading managers according to the scope of their duties is one prospective tool for discovering such learner attributes. If it could be shown that managerial grade level had a significant bearing on perceived satisfaction with, and performance on CAI exercises, designers could make more informed decisions on instructional strategies such as scoring mechanisms.

Hypotheses

Based on the research problem outlined, three hypotheses were proposed:
$H_1$ - Managers will be more satisfied with unscored programmed simulations than with scored programmed simulations.

$H_2$ - Managers of a high grade level will display less satisfaction with scored programmed simulations than managers of lower grade level.

$H_3$ - Managers' performance on multiple-choice questions will be higher on the scored programmed simulation than on the unscored programmed simulation.

The rationale for the hypotheses follows from the researcher's discussions with managers at two Canadian banks and from a priori assumptions about managers' perceptions of the seriousness of the performance appraisal process. In addition, the rationale partly derives from current knowledge about the motivating qualities of discovery, or experiential, learning. The main points of the rationale are

- The subject matter may be inherently interesting or motivating to the target audience because

(12)
performance appraisal is a task they usually conduct every six months. Managers generally consider this a serious, even an anxiety-inducing task. This is partly due to the switch in roles from resource person/helper to evaluator. It is plausible that managers would welcome any guidelines that would make this task easier for them to deal with.

- Managers might feel the point pay-off aspect of the programmed simulation trivializes the subject matter -- that it is an overly-light treatment of a serious management task. However, the rules set out in the scored version might cause them to perform better than managers in the unscored treatment who may deliberately enter wrong answers without fear of affecting their score.

- The higher the grade level managers have achieved, the more they might feel that the task is a serious one, and that playing for points is inappropriate to the gravity of the task and for their own status. (The Hay system of grading establishes not only a hierarchy of professional experience but also of perceived status within an
organization.)

- Providing that the content is accurate, the instructional technique of programmed simulation may be inherently interesting and motivating, since it is experiential versus expositive, and because its interactive features demand that the learner pay attention and respond. Thus, even if a visible scoring mechanism does not annoy managers, they may still find it superfluous.

- It may be inappropriate to arbitrarily assign discrete points to a subject matter or task that consists largely of shades of judgement, as opposed to identifiably correct answers. Manager-participants could react negatively to any perceived inconsistency.

**Operational Definition of Variables**

*Satisfaction* is measured by two Likert-scale attitude questionnaires, one administered to the two scored groups and the other to the two unscored groups. Questions were designed to measure attitudes related
to the rationale behind the hypotheses (Questions 6, 7, 8, 9, 10, 12, 13, 19, 20); attitudes directly related to the hypotheses (Questions 1, 2, 3, 4, 5, 11, 14, 15, 16, 18); and additional information related to the study, such as years of experience and performance appraisal courses taken (Questions 21, 22, 23, 24). Actual questionnaires used can be found in Appendix 1 and are further described in the Apparatus section.

**Level of Managerial Competence** is measured by the Hay system of professional staff grading which indicates ranges of ability and responsibility. For this study, high competence is indicated by a grade of three or four and low by a grade of one. (See Appendix 3 for a complete description of the grading method.)

**Performance** is measured by points achieved on multiple-choice questions in scored and unscored exercises. It was possible for participants to skip over Unit 2 of each of the 10 modules, provided they answered Unit 1 correctly. In addition, they could sometimes achieve double points on Unit 3, as described more fully in the Apparatus section. Taking these inequalities into account, scores for all Unit 2's were eliminated and one point was measured for a correct
answer to each of Unit 1 and 3.
2 Method

Subjects

The Manager of The Training Research and Development Section at the Toronto Dominion Bank, hosting the study, selected 24 managers with high and 24 with low Hay grades. Participants were selected on the basis of their availability and willingness to participate. The Manager assigned participants to one-and-three-quarter-hour time slots spaced over four consecutive days. Attrition claimed 12 participants, reducing the total sample to 36 managers, 19 high and 17 low.

Design

Two experimental variables were arranged in a 2 x 2 factorial design. The first experimental variable, type of programmed simulation, consisted of a visibly scored ("scored") and an invisibly scored ("unscored") version. The second variable, Hay grade category, consisted of high and low grade levels.
Hay Grade Category

Low - $A_1$  
High - $A_2$

<table>
<thead>
<tr>
<th>Type of Programmed Simulation</th>
<th>Scored - $B_2$</th>
<th>Unscored - $B_1$</th>
</tr>
</thead>
<tbody>
<tr>
<td>$A_1B_1$</td>
<td></td>
<td>$A_2B_1$</td>
</tr>
<tr>
<td>$A_1B_2$</td>
<td>$A_2B_2$</td>
<td></td>
</tr>
</tbody>
</table>

Apparatus and Experimental Materials

Two IBM personal computers with 256K RAM each and an accompanying Epson printer were set up in private working areas in a large, quiet room. Four floppy diskettes were used, two for each version of the exercise, in the event that scheduling required either two scored or two unscored exercises to be run simultaneously.
Each programmed simulation included a brief introduction, a menu of items of background information on a fictitious employee, "Harvey Hornblower", and a series of multiple-choice questions prompting participants to conduct a performance appraisal for Harvey. All background information was available at any time during the exercise by means of a "help" function. Each programmed simulation condition offered feedback after responses to multiple-choice questions. First, participants were told whether or not they had selected the best choice in Harvey's particular case. This was followed with a brief explanation of why their choices were correct or incorrect. The exercise then proceeded to the next unit or module. (See Appendix 4 for a sample printout of the introduction and Module 1 of the exercise.)

The exercises differed only with respect to the mention of points. The scored version consisted of 10 modules with three decision units in each module. It was visibly scored so that a correct answer on Unit 1 awarded points to participants, allowed them to skip Unit 2 (an obstacle with low pay-off), and qualified them for double points for a correct answer to Unit 3. Alternatively, those who answered Unit 1 incorrectly
got no points, had to answer Unit 2, and could not qualify for double points on Unit 3. The un-scored version was identical to the scored version except that the introduction made no mention of rules for scoring points.

The contents of the background information, the multiple-choice performance questions and the feedback were validated by the expert opinion of three independent judges: an assistant-professor of Management Science; the manager of a consulting firm who originally commissioned the exercise; and the Manager of The Training Research and Development Section at the hosting bank. The judges independently found that the exercise reflected current theory and practice in the area of performance appraisal, and that it had face validity.

As noted previously, the Likert-scale attitude questionnaire consisted of questions designed to measure the accuracy of the rationale behind the hypotheses, as well as to measure the participants' satisfaction with the treatment exercise. There were two versions of the questionnaire, one for the scored and one for the un-scored treatments. Questions
administered to both treatment groups were identical, except for Questions 14-19 which were constructed in parallel fashion to determine attitudes toward being scored or not being scored. For example, Question 14 (unscored) was, "I would have preferred being scored on each question as I went through the exercise." Question 14 (scored) was, "I would rather have done the exercise without seeing my score on each question." The questionnaires were validated by expert opinion and, considering the number of questions and scores obtained, proved acceptably reliable on a post-experimental item analysis. The internal consistency reliability index of the attitude test as given by Cronbach's alpha was equal to .49, which was considered respectable in consideration of the subject to item ratio.

Procedure

The two groups of managers selected and scheduled for the study (24 high, 24 low grades) were randomly assigned to scored and unscored treatments. Attrition claimed 12 participants so that results were obtained for 19 high-level managers (10 scored, 9 unscored) and

(21)
17 low-level managers (9 scored, 8 unscored). They were scheduled to run two at a time for four consecutive days during business hours.

Managers were welcomed two at a time when possible and briefed on the purpose of the study and the procedure to be followed. The purpose of the study was explained as part of ongoing research on computerized management exercises. In accordance with a request from the Manager of the Training Research and Development Section, participants were told that the research was not generated by the Bank and that any information they gave would not become part of their records.

All managers were told they could enter a fictitious name instead of their own when prompted by the computer program. All were directed to choose the sixth option on the menu so that they would all see the complete background information on the employee they were to review (Harvey). They were told there would be between 20 minutes and an hour of CAI, depending on whether they chose to repeat the exercise, then a five-minute questionnaire and a brief personal interview.

After completing the assigned scored or unscored
exercise and the appropriate questionnaire, managers were asked Question 14 from the questionnaire, that is, would they rather have a scored or an unscored exercise. They were asked to explain their choice. The researcher recorded their comments, answered any questions, and thanked the managers for participating in the study.
3 RESULTS

Two-way analyses of variance were performed on the data collected from multiple-choice questions throughout the exercises, i.e., number of points scored. There were no significant differences between any of the groups on either of the treatment conditions (Table 1).

Table 1
Means and Standard Deviations of Number of Questions Correct for Groups Differing in Managerial Grade Level and Type of Programmed Simulation

<table>
<thead>
<tr>
<th>Managerial Level</th>
<th>M</th>
<th>SD</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Scored</td>
<td>13.11</td>
<td>1.57</td>
<td>10</td>
</tr>
<tr>
<td>Unscored</td>
<td>12.94</td>
<td>1.43</td>
<td>9</td>
</tr>
<tr>
<td>Low Scored</td>
<td>13.36</td>
<td>1.49</td>
<td>7</td>
</tr>
<tr>
<td>Unscored</td>
<td>12.64</td>
<td>1.41</td>
<td>10</td>
</tr>
</tbody>
</table>
Although the cell sizes are somewhat low, the rough parity in standard deviation indicates no departure from homogeneity of variance, an essential condition for analysis of variance.

Regarding managers' satisfaction with programmed simulation treatment as indicated by choice to repeat or not, raw data revealed a small equal number of managers from scored and unscored groups actually repeated the exercise (3 scored, 3 unscored). Since so few managers chose to repeat the exercise no data were analyzed for this observation. In addition, there were no significant differences in attitude questionnaire results between scored and unscored groups for the question, "Given more time, would you repeat the exercise?" (Question 18, Table 2)

Ordinal data collected from the Likert-scale questionnaire were analyzed using the Mann-Whitney U test. Absolute frequencies of responses are recorded on merged scored and unscored versions of the questionnaire in Appendix 2. Means and standard deviations are tabulated in Table 2.
Table 2

Means and Standard Deviations of Questionnaire Scores for Groups Differing in Managerial Grade Level and Type of Programmed Simulation

<table>
<thead>
<tr>
<th>Questions</th>
<th>Grade Level</th>
<th>Programmed Simulation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>High</td>
<td>Low</td>
</tr>
<tr>
<td></td>
<td>M  SD</td>
<td>M  SD</td>
</tr>
<tr>
<td>1. Interesting exercise</td>
<td>1.74 .45</td>
<td>2.00 .70</td>
</tr>
<tr>
<td>2. Disliked exercise</td>
<td>4.26 .45</td>
<td>4.05 .65</td>
</tr>
<tr>
<td>3. More useful for never managers</td>
<td>3.52 1.17</td>
<td>3.11 1.16</td>
</tr>
<tr>
<td>4. Motivated me to do well</td>
<td>2.00 .81</td>
<td>2.29 .77</td>
</tr>
<tr>
<td>5. Learned nothing new</td>
<td>3.94 .84</td>
<td>3.47 .94</td>
</tr>
<tr>
<td>6. Wanted to enter wrong answer</td>
<td>3.31 1.37</td>
<td>3.76 1.14</td>
</tr>
<tr>
<td>7. Never tempted to enter wrong answer</td>
<td>2.57 1.34</td>
<td>2.47 1.41</td>
</tr>
<tr>
<td>8. One may learn from wrong answers</td>
<td>3.00 1.29</td>
<td>2.41 1.22</td>
</tr>
<tr>
<td>9. Like to know more about performance appraisal</td>
<td>1.84 .37</td>
<td>1.88 .78</td>
</tr>
<tr>
<td>10. Performance appraisal is a serious task</td>
<td>1.31 .48</td>
<td>1.35 .78</td>
</tr>
<tr>
<td>11. Exercise made me want to sharpen performance appraisal skills</td>
<td>1.89 .74</td>
<td>1.88 .60</td>
</tr>
<tr>
<td>12. Performance appraisal is difficult</td>
<td>1.63 .59</td>
<td>1.94 .66</td>
</tr>
<tr>
<td>13. Knew enough about performance appraisal</td>
<td>3.95 .52</td>
<td>3.64 .70</td>
</tr>
<tr>
<td>14. Preference for being scored</td>
<td>3.42 1.01</td>
<td>3.41 .71</td>
</tr>
<tr>
<td>15. Being scored challenging</td>
<td>3.15 1.06</td>
<td>2.94 .90</td>
</tr>
<tr>
<td>16. Interested in points on Harvey’s reactions</td>
<td>2.63 1.16</td>
<td>2.82 .95</td>
</tr>
<tr>
<td>17. Scoring affects trying for right answers</td>
<td>2.42 1.17</td>
<td>3.06 1.20</td>
</tr>
</tbody>
</table>

(26)
<table>
<thead>
<tr>
<th>Questions</th>
<th>Grade Level</th>
<th></th>
<th>Programmed Simulation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18. Would repeat given time</td>
<td>1.58</td>
<td>.51</td>
<td>1.47</td>
</tr>
<tr>
<td></td>
<td>1.41</td>
<td>.51</td>
<td>1.52</td>
</tr>
<tr>
<td>19A. Gave intentional wrong answers</td>
<td>1.79</td>
<td>.41</td>
<td>1.94</td>
</tr>
<tr>
<td></td>
<td>1.76</td>
<td>.56</td>
<td>1.63</td>
</tr>
<tr>
<td>19B. Number of times gave wrong answers</td>
<td>.47</td>
<td>1.02</td>
<td>.24</td>
</tr>
<tr>
<td></td>
<td>.59</td>
<td>1.12</td>
<td>.95</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2.31</td>
</tr>
<tr>
<td>20. Months of managerial experience</td>
<td>76.73</td>
<td>106.78</td>
<td>81.94</td>
</tr>
<tr>
<td></td>
<td>32.88</td>
<td>33.94</td>
<td>32.84</td>
</tr>
<tr>
<td>21. Months of conducting performance appraisal</td>
<td>59.68*</td>
<td>95.34</td>
<td>55.41</td>
</tr>
<tr>
<td></td>
<td>21.52*</td>
<td>35.16</td>
<td>103.13</td>
</tr>
<tr>
<td>22A.Taken course in performance appraisal</td>
<td>1.26</td>
<td>.45</td>
<td>1.41</td>
</tr>
<tr>
<td></td>
<td>1.52</td>
<td>.51</td>
<td>1.36</td>
</tr>
<tr>
<td>22B.Recent course in performance appraisal</td>
<td>1.63</td>
<td>1.21</td>
<td>1.35</td>
</tr>
<tr>
<td></td>
<td>.88</td>
<td>1.11</td>
<td>1.21</td>
</tr>
</tbody>
</table>

* Significant differences found at $p < .05$ as indicated by analysis using Mann-Whitney U tests.
There were 4 significant differences found for the main effect of type of programmed simulation and one for the main effect of Hay grade level, as noted in Table 3. All other data obtained from the questionnaire yielded no significant differences.

Table 3
Mann-Whitney U Values for Groups Differing in Managerial Grade Level and Type of Programmed Simulation

<table>
<thead>
<tr>
<th>Grade Level</th>
<th>High</th>
<th>Low</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. cases</td>
<td>19</td>
<td>17</td>
</tr>
<tr>
<td>Mean rank</td>
<td>21.92</td>
<td>14.68</td>
</tr>
<tr>
<td>U</td>
<td></td>
<td>96.5</td>
</tr>
<tr>
<td>D</td>
<td></td>
<td>2.11*</td>
</tr>
<tr>
<td>Z</td>
<td></td>
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Programmed Simulation

<table>
<thead>
<tr>
<th>(Q7 - Never tempted wrong answer)</th>
<th>Scored</th>
<th>Unscored</th>
<th>(Q19 - Being scored challenging)</th>
<th>Scored</th>
<th>Unscored</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. cases</td>
<td>17</td>
<td>19</td>
<td>17</td>
<td>19</td>
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</tr>
<tr>
<td>Mean rank</td>
<td>14.29</td>
<td>22.26</td>
<td>12.71</td>
<td>23.68</td>
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</tr>
<tr>
<td>U</td>
<td>90.0</td>
<td></td>
<td>63.0</td>
<td></td>
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</tr>
<tr>
<td>Z</td>
<td>-2.35*</td>
<td></td>
<td>-3.39*</td>
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(Q17 - Trying for right answers) (Q19B - Frequency wrong answers)

<table>
<thead>
<tr>
<th>No. cases</th>
<th>17</th>
<th>19</th>
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<tr>
<td>Mean rank</td>
<td>12.85</td>
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<tr>
<td>U</td>
<td>65.5</td>
<td>108.0</td>
<td></td>
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</tr>
<tr>
<td>Z</td>
<td>-3.16*</td>
<td>-2.33*</td>
<td></td>
<td></td>
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</tbody>
</table>

* p < .05

(28)
4 DISCUSSION

The only significant result for the main effect of managerial grade level was that high level managers had more months of experience in conducting performance appraisals. This result, although significant, was to be expected and is not particularly illuminating of the hypotheses. Of greater interest are those results obtained for the main effect of type of programmed simulation (scored/unscored).

Likert questionnaire results confirmed the belief that all managers regard performance appraisal as a difficult and serious task ("Performance appraisal is difficult" -- 30.6% strongly agreed; 63.9% agreed and "Performance appraisal is a serious task" -- 72.2% strongly agreed; 25.0% agreed). Managers with a higher grade level did not perceive this task to be more serious than did lower level managers. Furthermore, the overall perception of seriousness did not manifest itself, as expected, in dissatisfaction with the game-like scored version.
For the majority of questions designed to measure satisfaction with treatment, there were no significant differences (questions 1, 2, 3, 4, 5, 11, 14, 16, 18). The only exception to this trend was the finding that scored managers agreed significantly more often than unscored managers with the statement that scoring is "challenging" (question 17). This result alone is not considered to be strong enough to reject the null hypothesis regarding satisfaction for at least two reasons. First, while the term "challenging" is often viewed in a positive light, there are cases in which a challenging activity is not necessarily a satisfying one. In addition, scored managers had the advantage of actually experiencing the scoring while unscored managers had to imagine whether scoring would be challenging. Had the result been obtained by comparing managers' reactions to both a scored and an unscored exercise, it might warrant closer attention.

Based on the foregoing discussion, the null hypotheses ($H_1$ and $H_2$) were accepted.

As expected, scored managers were tempted significantly less often to enter wrong answers (question 7), reported a lower frequency of entering
wrong answers (question 19B), and reported a stronger attempt to get answers correct (question 17). As noted in the table of mean scores this did not cause their performance to be higher than for un-scored managers. Therefore, the null hypothesis ($H_3$) was accepted.

Accepting the null hypothesis is tempered in this case by consideration of the possibility that a Type II error occurred or that the attitude questionnaire may not have been sensitive enough to measure differences in satisfaction. In the former instance, there may not have been enough distance between high and low level managers. Due to higher priorities in the business environment, few grade 4 and no grade 5 managers were available for the study. However, if it were necessary to use grades so widely separated in order to find differences, the Hay grading system would not be considered a very useful indicator for instructional designers regarding use of visible scoring.

Alternatively, it seems more plausible that this type of error did not occur because of the existence of other hidden variables known to exist in any experimental setting. Factors, such as personality, may indeed be more important than readily-measured learner
attributes, even in a business setting. In this connection it is worth noting some of the unanalysed comments participants made during interviews immediately after the scored treatment. Some managers reported that they enjoyed being scored because they were "competitive" or "achievement-oriented". On reflection these same managers observed that the presence of points caused them to focus more on "second-guessing" the computer program than on taking the best decision for a real performance appraisal of someone like Harvey. Scoring may be seen even to be a disincentive to learning, particularly when viewed in the latter context. Viewed in this light it is particularly revealing that on the analysis of variance for the main effect of the scored versus the unscored simulation, no significant difference was recorded between the two versions (Table 1).

The results are consistent with the state of current knowledge about the benefits of experiential learning. There was general strong agreement among managers that "Harvey is an interesting exercise" (22.2% strongly agreed; 72.2% agreed). This may be an indication that other critical elements exist common to both treatments which contribute to satisfaction and
enhance performance. These could outweigh the apparently negligible effect of scoring. These factors might include relevance of subject matter, of the experience, interactivity, or those factors identified by Malone (1981) as being central to intrinsically motivating instruction: challenge, fantasy, and curiosity. It is possible too that informing learners of the reasons why answers are correct or incorrect operates to make scoring superfluous.

The null hypotheses are of particular interest to the instructional designer. Should similar studies show the same results, designers of management CAI may conclude that visible scoring does not in itself increase satisfaction or performance.
REFERENCES


(34)


# QUESTIONNAIRE
(unscored version)

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
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<tbody>
<tr>
<td></td>
<td>strongly agree</td>
<td>no opinion</td>
<td>disagree</td>
<td>strongly agree</td>
<td>disagree</td>
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## 1. Harvey Hornblower is an interesting exercise.

<table>
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## 2. I disliked the exercise.

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## 3. The exercise is more useful for new managers (1-2 yrs experience) than for experienced managers.

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## 4. In general the exercise motivated me to do well.

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## 5. I did not learn anything new from the exercise.

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</table>

## 6. At times I wanted to enter a wrong answer just to see how Harvey would react.

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</table>

## 7. I was never tempted to enter a wrong answer.

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<td>1</td>
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<td>5</td>
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</table>

## 8. When the right answer is obvious, a person can sometimes learn more by entering a wrong answer.

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<th></th>
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<th>3</th>
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<td>disagree</td>
<td>strongly agree</td>
<td>disagree</td>
</tr>
<tr>
<td>9.</td>
<td>Performance appraisal is a subject I would like to know more about.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>10.</td>
<td>Performance appraisal is a serious task.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>11.</td>
<td>The exercise made me more interested in sharpening my performance appraisal skills.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>12.</td>
<td>Conducting performance appraisals is difficult.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>13.</td>
<td>I already knew enough about performance appraisal before the exercise.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>14.</td>
<td>I would have preferred being scored on each question as I went through the exercise.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
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<tr>
<td>15.</td>
<td>The exercise would be more challenging if participants had to score points for answers.</td>
<td>1</td>
<td>2</td>
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<td>16.</td>
<td>Having to score points would have interfered with my interest in Harvey's responses to my actions.</td>
<td>1</td>
<td>2</td>
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<tr>
<td>17.</td>
<td>If points were scored I would have tried harder to get each answer right.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
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</table>

(37)
18. Given more time - would you repeat the Harvey Hornblower exercise?  
   yes  no

19A. Did you sometimes enter wrong answers on purpose so you could see how Harvey would react?  
   yes  no

19B. If yes, how many times?  
   once  1-5 times  6-10 times

20. How many years of managerial experience do you have?  

21. How many years have you been conducting performance appraisal reviews?  

22A. Have you ever taken a course in how to conduct performance appraisals?  
   yes  no

22B. If yes, when was the course?  
   in the last year  1-3 yrs ago  4+ yrs ago
QUESTIONNAIRE
(scored version)

1 | 2 | 3 | 4 | 5
---|---|---|---|---
strongly agree | no opinion | disagree | strongly agree

1. Harvey Hornblower is an interesting exercise.

2. I disliked the exercise.

3. The exercise is more useful for new managers (1-2 yrs experience) than for experienced managers.

4. In general the exercise motivated me to do well.

5. I did not learn anything new from the exercise.

6. At times I wanted to enter a wrong answer just to see how Harvey would react.

7. I was never tempted to enter a wrong answer.

8. When the right answer is obvious, a person can sometimes learn more by entering a wrong answer.

(39)
<p>| | | | | | |</p>
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</table>

strongly agree | agree | no opinion | disagree | strongly disagree |

9. Performance appraisal is a subject I would like to know more about.  
   Check one  
   1 2 3 4 5

10. Performance appraisal is a serious task.  

11. The exercise made me more interested in sharpening my performance appraisal skills.  

12. Conducting performance appraisals is difficult.  

13. I already knew enough about performance appraisal before the exercise.  

14. I would rather have done the exercise without seeing my score on each question.  

15. Exercises like Harvey Hornblower are more challenging when participants have to score points for answers.  

16. I was more interested in Harvey's response to my decisions than I was in scoring points.  

17. I tried to get a high score.  

(40)
18. Given more time - would you repeat the Harvey Hornblower exercise?  
   yes  
   no

19A. Did you sometimes enter wrong answers on purpose so you could see how Harvey would react?  
   yes  
   no

19B. If yes, how many times?  
   once  
   1-5 times  
   6-10 times

20. How many years of managerial experience do you have?  

21. How many years have you been conducting performance appraisal reviews?  

22A. Have you ever taken a course in how to conduct performance appraisals?  
   yes  
   no

22B. If yes, when was the course?  
   in the last year  
   1-3 yrs ago  
   4+ yrs ago
APPENDIX 2

QUESTIONNAIRE
(absolute frequencies of responses for scored and un-scored versions)
C = questions common to both versions
S = questions administered in scored treatment only
U = questions administered in un-scored treatment only

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<td>no opinion</td>
<td>disagree strongly agree</td>
<td>opinion</td>
<td>disagree</td>
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</table>

Check one

C 1. Harvey Hornblower is an interesting exercise.

8, 26, 1, 1, 0

C 2. I disliked the exercise.

0, 1, 0, 27, 8

C 3. The exercise is more useful for new managers (1-2 yrs experience) than for experienced managers.

2, 10, 2, 18, 4

C 4. In general the exercise motivated me to do well.

6, 22, 5, 3, 0

C 5. I did not learn anything new from the exercise.

0, 6, 3, 22, 5

C 6. At times I wanted to enter a wrong answer just to see how Harvey would react.

2, 9, 2, 17, 9

C 7. I was never tempted to enter a wrong answer.

10, 12, 2, 9, 3

C 8. When the right answer is obvious, a person can sometimes learn more by entering a wrong answer.

5, 16, 3, 8, 7

(42)
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<td>disagree</td>
<td>no opinion</td>
<td>agree</td>
<td>strongly agree</td>
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</table>

**C 9.** Performance appraisal is a subject I would like to know more about. 8 26 1 1 0 1 2 3 4 5

**C 10.** Performance appraisal is a serious task. 26 9 0 1 0 1 2 3 4 5

**C 11.** The exercise made me more interested in sharpening my performance appraisal skills. 9 23 3 1 0 1 2 3 4 5

**C 12.** Conducting performance appraisals is difficult. 11 23 1 1 0 1 2 3 4 5

**C 13.** I already knew enough about performance appraisal before the exercise. 0 1 8 24 3 1 2 3 4 5

---

**U 14.** I would have preferred being scored on each question as I went through the exercise. 1 5 9 20 1 1 2 3 4 5

**S** I would rather have done the exercise without seeing my score on each question.

**U 15.** The exercise would be more challenging if participants had to score points for answers. 1 13 5 17 0 1 2 3 4 5

**S** Exercises like Harvey Hornblower are more challenging when participants have to score points for answers.

(43)
U 16. Having to score points would have interfered with my interest in Harvey's responses to my actions.  
S I was more interested in Harvey's response to my decisions than I was in scoring points.

U 17. If points were scored I would have tried harder to get each answer right.  
S I tried to get a high score.

C 18. Given more time - would you repeat the Harvey Hornblower exercise?  
18 yes 18 no

C 19A. Did you sometimes enter wrong answers on purpose so you could see how Harvey would react?  
6 yes 29 no

C 19B. If yes, how many times?  
1 once 3 1-5 times 4 6-10 times
C 20. How many years of managerial experience do you have?  
<table>
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<tr>
<th>1</th>
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<td>1 or less</td>
<td>1-5</td>
<td>5-10</td>
<td>10-30</td>
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C 21. How many years have you been conducting performance appraisal reviews?  
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<th>23</th>
<th>6</th>
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<td>1 or less</td>
<td>1-5</td>
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<td>10-30</td>
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C 22A. Have you ever taken a course in how to conduct performance appraisals?  
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<td>yes</td>
<td>no</td>
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C 22B. If yes, when was the course?  
<table>
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<tr>
<th>6</th>
<th>8</th>
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<tr>
<td>in the last yr.</td>
<td>1-3 yrs. ago</td>
<td>4+ yrs. ago</td>
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### Definitions of Grade Levels

#### Staff Grading

#### The Definitions of

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<th>Specialized Knowledge and Experience</th>
<th>Judgment</th>
<th>Complexity</th>
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<tr>
<td>Competence in a range of problems</td>
<td>Thorough preparation in solving problems, the solutions of which are based on a range of problems.</td>
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<tr>
<td>Competence in a range of problems</td>
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</table>

**Grades 1**

- Either extensive knowledge of a few specialized fields or broad knowledge of many subject areas.
- Experience in the application of knowledge and skills.
- Competence in a range of problems.
- Thorough preparation in solving problems, the solutions of which are based on a range of problems.
- Thorough preparation in solving problems, the solutions of which are based on a range of problems.

**Grades 2**

- Either extensive knowledge of many specialized fields or broad knowledge of many subject areas.
- Experience in the application of knowledge and skills.
- Competence in a range of problems.
- Thorough preparation in solving problems, the solutions of which are based on a range of problems.
- Thorough preparation in solving problems, the solutions of which are based on a range of problems.

**Grades 3**

- Knowledge of a single subject area.
- Experience in the application of knowledge and skills.
- Competence in a range of problems.
- Thorough preparation in solving problems, the solutions of which are based on a range of problems.
- Thorough preparation in solving problems, the solutions of which are based on a range of problems.

**Grades 4**

- Experience in the application of knowledge and skills.
- Competence in a range of problems.
- Thorough preparation in solving problems, the solutions of which are based on a range of problems.
- Thorough preparation in solving problems, the solutions of which are based on a range of problems.
- Thorough preparation in solving problems, the solutions of which are based on a range of problems.

**Grades 5**

- Experience in the application of knowledge and skills.
- Competence in a range of problems.
- Thorough preparation in solving problems, the solutions of which are based on a range of problems.
- Thorough preparation in solving problems, the solutions of which are based on a range of problems.
- Thorough preparation in solving problems, the solutions of which are based on a range of problems.

### Grade Management

#### Judgement

- The advantages and disadvantages of the alternative courses cannot always be established completely from knowledge and experience, though their relative importance in relation to the aim should be clear. There is, therefore, some uncertainty in determining the effects of each course in a very minor extent.

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- The advantages and disadvantages of the alternative courses cannot always be established completely from knowledge and experience, though their relative importance in relation to the aim should be clear. There is, therefore, some uncertainty in determining the effects of each course in a very minor extent.

### Creative Thought

- Creative Thought is exercised in solving problems, the solutions of which are based on a range of problems.
- Creative Thought is exercised in solving problems, the solutions of which are based on a range of problems.
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- Creative Thought is exercised in solving problems, the solutions of which are based on a range of problems.
- Creative Thought is exercised in solving problems, the solutions of which are based on a range of problems.

### Man/Management

- The problem of solutions calls for an ability to carry conviction with, and to obtain the maximum cooperation of efforts in controlling and administering a group of junior staff or in conducting negotiations or contacts on day to day or technical matters where the difficulties to be resolved are of a minor character.
- The problem of solutions calls for an ability to carry conviction with, and to obtain the maximum cooperation of efforts in controlling and administering a group of junior staff or in conducting negotiations or contacts on day to day or technical matters where the difficulties to be resolved are of a minor character.
- The problem of solutions calls for an ability to carry conviction with, and to obtain the maximum cooperation of efforts in controlling and administering a group of junior staff or in conducting negotiations or contacts on day to day or technical matters where the difficulties to be resolved are of a minor character.
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<table>
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<th>GRADE LEVELS</th>
<th>APPENDIX A</th>
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### DEFINITIONS OF GRADE LEVELS

<table>
<thead>
<tr>
<th>Money</th>
<th>Decisions</th>
<th>Facilities</th>
</tr>
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<tbody>
<tr>
<td>Grade 1</td>
<td>Purchases or commitments of a limited variety in accordance with precedent or from a closely controlled budget; expenditure on each item is very minor.</td>
<td>Deployment of a group of junior staff where loading or effort can be determined from close precedent and priorities are closely determined. The allocation of staff is based primarily on competence in standard methods of work. The treatment of staff is based on their performance. This includes advice on minor personal matters. Action affecting the individual's prospects or working conditions is determined closely prescribed.</td>
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| Grade 2 | Purchases or commitments of a wider variety in accordance with previous choice or from a closely controlled budget; expenditure on each item is minor. | Deployment of a group engaged on a wide range of standard activities, where loading or effort can be determined from precedent and priorities are determined broadly. The allocation or assessment of work or junior staff is based on ‘adequate’ staff which is usually of standard character. The treatment of staff where there is no precedent in determining the information, assistance or training to be given on day-to-day matters; this includes advice on minor personal matters. Action affecting an individual's prospects or working conditions is determined closely prescribed. | The deployment or selection of a limited range of activities where there is some latitude both on the type to be used and the assessment of the relative importance of different assignments. The use of facilities where variations in approved methods may be considerable, but the effects on the quality of service are minimal. |

| Grade 3 | Purchases or commitments of a varied character where there is no close precedent or apportionment. Expenditure on each item is moderate. | Deployment of a group engaged on varied and somewhat standard activities, where loading or effort can be determined from precedent but priorities are determined broadly. The allocation or assessment of staff is based on the professional level where decisions are based on potential as well as competence. The treatment of staff on matters where the balance and emphasis is given information, assistance or training through advice on minor personal matters. Some latitude is permitted in action affecting an individual's prospects or working conditions. | The relative emphasis is given to different but non-controversial aspects of an organization's reputation. The use of facilities where both variations in approved methods and the effects on the quality of service are considerable. |

| Grade 4 | Purchases or commitments with substantial flexibility in the absence of precedent or apportionment. Expenditure on each item is considerable. | Deployment of a group where there is no close precedent in determining loading or effort, or on the available approach which can be reasonably allocated, the staff is largely determined by the relative importance of assignments. The allocation of staff is based on potential and the allocation of such staff is determined by the need to develop the individual's full potential. The treatment of staff on matters where the balance and emphasis given in giving information, assistance or training cannot be determined by precedent and may have a major effect on the individual's career and development. This includes advice on minor personal matters. Some latitude is permitted in action affecting the working conditions of a group of staff. | The deployment or selection of a limited range of activities on a long-term basis where there is considerable latitude in the type to be used and on the relative importance of different assignments. The use of facilities where further variations in approved methods may have a long-term effect within a restricted area. |

| Grade 5 | Purchases or commitments with long-term effects or involving substantial freedom of negotiation, expenditure on each item is substantial. | Deployment of a group where there is no close precedent or guidance in determining the relative importance of different assignments. The allocation of staff is based on potential. The allocation of staff is determined by the need to develop the individual's full potential. All aspects of the allocation, prospects and working conditions of a staff are determined by the relative importance of different assignments. Some latitude is permitted in action affecting the working conditions of a group of staff. | The deployment or selection of a wide and divergent range of activities on a long-term basis where there is a wide choice in both the type to be used and the relative importance of different assignments. The use of facilities where considerable modifications may have a long-term effect. |
APPENDIX 4

BAILEY & ROSE EDUCATION SERVICES
PRESENTS

THE HARVEY BORNBLOWER EXERCISE

A management case study in leadership and motivation which can be used as part of any course which deals with these subjects.

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SYNERLOGICAL SESSION MM-1: THE HARVEY HORNBLOWER EXERCISE

Welcome to the Harvey Hornblower Exercise!

During this exercise, you'll be conducting a semi-annual appraisal/counselling interview with one of your subordinates, Harvey Hornblower.

Since we'll be working closely together over the next forty minutes or so, perhaps we should introduce ourselves. My name is Pat -- it's an acronym for Pedagogically-Applied Technology.

Would you please tell me your first name, or the name your friends and colleagues know you by (maximum 12 letters, please).

//Susan

Type your first name and press 'RETURN'. Use the backspace key (to correct.
SYNERLOGICAL SESSION MM-1: THE HARVEY HORNBLOWER EXERCISE

It's nice to meet you, Susan!

Just for the record, so I can keep you separate from all the other Susans who have gone through this session, would you mind giving me your last name, as well.

//Francis

Type your last name and press 'RETURN'. Use the backspace key (to correct.
SYNERLOGICAL SESSION MM-1: THE HARVEY HORNBLOWER EXERCISE

It's nice to meet you, Susan!

Just for the record, so I can keep you separate from all the other Susans who have gone through this session, would you mind giving me your last name, as well.

//Francis

Now, before you begin the counselling session, I'll give you a chance to review Harvey's personal background, work history, and excerpts from records and previous evaluations. After digesting this information, you will be ready to meet Harvey in person.

Our session is divided into ten modules. They cover every aspect of the counselling interview from setting objectives to follow-up.

Within each module are three related decision units. Each unit, in turn, contains three alternatives for you to select from. You'll be awarded points on the basis of your decisions.

Press the 'RETURN' key to continue.
Here are the rules for the exercise:

1. The objective of the exercise (aside from learning) is to score as many points as possible.

2. In each unit, you will be confronted with a scenario and three alternative choices of action. Choose the one you think is best. In some cases, you won't agree completely with any of the choices. In those cases, choose the alternative that is closest to the action you would take.

3. In each module, you'll start with Unit 1. If you make the correct decision on Unit 1, you can increase your score by skipping Unit 2 and moving to Unit 3, where you qualify for DOUBLE points. In other words, the correct decision in Unit 1 of each module will enable you to hurdle Unit 2 (an obstacle, with low pay-off) and put you in a position to score a greatly increased point gain.
4. Correct decisions in each of the three units will earn you the following points:

Unit 1 -- 2 points
Unit 2 -- 1 point
Unit 3 -- 4 points (or 8 points, if you skip Unit 2).

After Module 10, I'll give you your score and, if you wish, a de-briefing on the exercise.

All set, Susan? Good. I'll now give you the opportunity either to move directly to the first module or, if you prefer, to familiarize yourself with Harvey Hornblower's records and personal background. You'll be able to see an part of the background information at any point in the session by typing 'B' when the prompt (the line at the bottom of the screen) contains this option.

Press the 'RETURN' key to continue.
SYNERLOGICAL SESSION MM-1: THE HARVEY HORNBLOWER EXERCISE

You can go directly to Module 1 by choosing item 7. Get Harvey's complete background (which includes items 1 to 5) by selecting item 6. Or, see any particular aspect of Harvey's history by choosing items 1 through 5.

1. Personal Data and Earnings Record
2. Personnel Record notes
3. A memo to yourself, dated this week.
4. A summary of Harvey's most recent appraisal
5. Harvey's reaction to the appraisal
6. The complete background (all of items 1 through 5)
7. Go directly to Module 1, Unit 1.

Your choice //

Enter your selection, and press the 'RETURN' key.
SYNERLOGICAL SESSION MM-1: THE HARVEY HORNBLOWER EXERCISE

BACKGROUND ON HARVEY HORNBLOWER

Personal

Age: 26
Married, with two children
Completed two years of university
Four years with your organization (no previous full-time work history).

Earnings Record

<p>| | |</p>
<table>
<thead>
<tr>
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<tbody>
<tr>
<td>First year</td>
<td>$16,000</td>
</tr>
<tr>
<td>Second year</td>
<td>$17,300</td>
</tr>
<tr>
<td>Third year</td>
<td>$18,000</td>
</tr>
<tr>
<td>Fourth year (just completed)</td>
<td>$19,000</td>
</tr>
</tbody>
</table>

Press the 'RETURN' key to continue.
Personnel Record Notes

Harvey Hornblower was promoted and transferred to your department one year ago. Some excerpts from his records:

First Supervisor: "Harvey came to us directly from university; he decided to join us rather than complete his degree program for economic reasons, but plans to work towards finishing his degree in evening extension. I find him bright, eager to learn. He does need to mature somewhat; recent marriage should help. At this point he requires a periodic pat on the back, assurance, recognition for effort. Takes pride in doing a good job."

Second Supervisor: "He's imaginative and a hard worker; normally exercises good judgement. Harvey can, however, be stubborn. He's difficult to change when he thinks he's right. Is rigid in his approach to problems -- prefers his way rather than following directions of manager. Often sticks to his guns beyond reasonable point; seldom will admit to error."

Press the 'RETURN' key to continue.
"In spite of these factors, Harvey continues to do an excellent job overall. He recently turned down a promotion to a different division (along with substantial raise) because he felt the proposed new assignment 'did not hold sufficient challenge or opportunity for growth'. I hope to find him a suitable spot in the near future where he will feel his skills will be better utilized."

'Harvey doesn't react too well to criticism from managers or peers; he often gets defensive. Minor problems will occasionally upset him. In spite of these shortcomings, he gets back on track quickly. Harvey is very well liked, has a good personality, is confident.'
Memo to Yourself (dated this week)

Yesterday, Harvey wasted six hours attacking a problem incorrectly -- discarding or misinterpreting my instructions.

He was working on a detailed and complex project outline. His proposed method was sound, but it violated recognized procedure and could not be completed within the established budget.

Harvey was familiar with both facts prior to starting. He will have to spend another day re-working the plan to meet our specs.

Press the 'RETURN' key to continue.
Summary of Most Recent Appraisal (your report -- six months ago)

Strengths

Good administrator, handles paperwork well, writes good reports, creative, prompt in meeting deadlines, confident, normally uses good business judgement.

Could Improve

Needs to become more flexible and adaptable. Harvey sometimes finds it difficult to accept suggestions. Has a tendency to improvise (if he doesn't agree); at times he doesn't listen well, or claims he doesn't. I feel he will become less rigid and be able to broaden his outlook as he develops.

Self-Development

Continuing with university course; completed workshop in public speaking; attended two company-sponsored seminars. Indicates interest in further development.

Press the 'RETURN' key to continue.
SYNERLOGICAL SESSION MM-1: THE HARVEY HORNBLOWER EXERCISE

Potential

Excellent. Likes responsibility, takes initiative. Very bright, learns fast, gets along well with people. I feel that Harvey has management potential. Will recommend for raise at appropriate time.

Press the 'RETURN' key to continue.
Reaction to Appraisal

Harvey can't view his performance objectively. He responded well when I assured him his overall performance was good; he was very interested in areas where he is strong. He listened to constructive suggestions but didn't seem overly enthusiastic. We discussed his inconsistencies in following instructions; I don't think he is convinced of the reality and degree of this shortcoming.
That's it, Susan! Now that you're familiar with all the background information, you're ready to meet Harvey and conduct the appraisal/counselling interview.

Unless you need to review some portion of the background, I suggest you select option 7 on the menu. Good luck!
SYNERLOGICAL SESSION MM-1: THE HARVEY BORNBOLOWER EXERCISE

You can go directly to Module 1 by choosing item 7. Get Harvey's complete background (which includes items 1 to 5) by selecting item 6. Or, see any particular aspect of Harvey's history by choosing items 1 through 5.

1. Personal Data and Earnings Record
2. Personnel Record notes
3. A memo to yourself, dated this week.
4. A summary of Harvey's most recent appraisal
5. Harvey's reaction to the appraisal
6. The complete background (all of items 1 through 5)
7. Go directly to Module 1, Unit 1.

Your choice // 7

Enter your selection, and press the 'RETURN' key.
SYNERLOGICAL SESSION MM-1: THE HARVEY HORNBLOWER EXERCISE, MODULE 1  FRAME 16

Unit 1

Before you set your objectives and plan Harvey's appraisal/counselling interview, you should:

A) Pick out only recent incidents or examples to help you evaluate Harvey's current performance. (His latest goof -- this week -- is a good case in point.)

B) Do research, but expand your review to cover the entire period since Harvey's last appraisal interview.

C) Do nothing. If you're not familiar with Harvey's work, habits and performance, you're not doing an effective managerial job.

Your decision // B

Type 'A', 'B' or 'C', and press the 'RETURN' key.
Yes, Susan, this is the best choice. Do some homework -- it's a good idea to keep a running record, that is, notes on good and bad performance -- but do it for the entire evaluation period.

You've earned 2 points, and you now qualify for DOUBLE points on Unit 3!

Press the 'RETURN' key to continue, or 'B' to see the background information.
Unit 3

Your planning should cover the selection of an appropriate site in which to conduct the interview. Which would be best?

A) Your office. Rank has its privileges and there's no need for you to discard your role for this one occasion.

B) Harvey's office or work space. It's always a good idea to meet one of your subordinates on his terms.

C) A neutral office, conference room, or off-premises site.

Your decision // C

Type 'A', 'B' or 'C', and press the 'RETURN' key.
Yes, Susan, a neutral meeting spot is your best bet for a relaxed interview. In any case, it's essential to provide privacy -- turn off phones, guard against interruptions.

You've earned 8 points because you skipped Unit 2! Let's move on to the next module.

Press the 'RETURN' key to continue, or 'B' to see the background information.