THE ROLE OF SELECTION IN THE EVALUATION OF A MANAGEMENT TRAINING PROGRAM

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ABSTRACT

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The role of selection as it affects performance in a management training program was assessed. For this purpose a seven stage general model incorporating selection into the evaluation of a training program was developed. This approach was taken in order to find explicit criteria for selecting candidates for a training program rather than the informal criteria currently in use. Subjects were forty-nine management trainees at a major Canadian financial institution. The selection variables that were examined included demographic data, critical abilities as measured by three psychological tests, and a pretest to measure prior knowledge. Performance was measured by an embedded test midway through the course, a case study dealing with financial analysis, and an objective posttest. The results on the achievement tests revealed highly significant learning. Educational level and type of experience were found to contribute towards performance on the course. Multiple regression techniques were used to identify the combinations of selection variables that best predicted performance in the training program. The best predictions were found for the embedded test which suggests that background differences were still playing a role halfway through the program. These differences were later neutralized as posttest predictions were not significant. The psychological tests were not found to contribute enough additional information to be cost-effective. Trainees in general responded favorably to the training program but did not in all cases get to apply concepts on the job. Future research should concentrate on objective assessments of job performance as a direct result of training.

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TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

CHAPTER I

RATIONALE

More and more, businesses are beginning to realize that management is a profession, that it is a working skill or art, that it can be refined, can be improved, and that it is necessary to do so in today's mercurial management environment (Hinds, 1975). Experts at the U.S. Manpower Services Commission issued in 1977 a discussion paper where they stated that management development was the key to future prosperity.

Because economic expansion and technological innovation stimulated a demand for competent managers, firms have, in recent years, found it much wiser to upgrade their own managerial workforce through the use of management training programs rather than to hire them away from competition. In attaining this objective, companies have been using either in-house facilities or specialized consulting firms or both. Tosti (1980) reported that American businesses and government agencies spend on the average seven billion a year on training but have failed to analyse its purposes, costs, or effectiveness. Until recently, upper management was content in knowing that training was thought to be relevant by the trainees and that they actually did learn something. But now, more emphasis is being placed on evaluating training results because upper management now sees training as an investment. Consequently, it has become increasingly important to determine what economic benefits may be directly attributed to training (Brown, 1980). This recent emphasis on return on investment for training dollars has made sound evaluation techniques a matter of prime concern facing the Human Resources Development profession.

Methods of determining training needs and budgets vary from non-existant to fairly sophisticated, though systems for quantitatively measuring training effectiveness are still in their infancy (Wagel, 1977). Extensive evaluation research has been conducted mostly in the area of skill training programs as it is easier to identify and measure changes in performance as a direct result of the training activity (Smelzer, 1979). However, with management and general knowledge training, it is often more difficult to define measurable performance indices, so an evaluation of the results of these training programs is seldom attempted (Brown, 1980). Consequently, the post meeting reaction form, although inadequate, is still the most widely used measuring device in the evaluation of management training programs (Dopyera & Lay-Dopyera, 1980).

Smith (1980) best summarizes the evaluation predicament in industry. He claims that more often than not, evaluation is not truly perceived as a need, i.e., it is not a high priority item. Secondly, there is a definite scarcity of professional evaluators thus leading to mistakes in data collection methods and analysis by unqualified personnel. According to Smith, this results in poor acceptance and use of findings. A third obstacle is volatile course content making it difficult to decide what to evaluate and if the course is evaluated, which findings are still valid. Another obstacle as seen by Smith, can be the long time lag needed to show the effectiveness of the training activity. With management training courses, it may be months before graduates have the opportunity to apply what they have learned or months before productivity measurements reflect improved job performance due to

training. Industrial course evaluations are also difficult to pursue as more often than not, these evaluations are perceived as truly negative experiences by both trainer and trainee who suspect that they, rather than the training, are being evaluated. Consequently, this often leads to a lack of cooperation. Finally, higher management can discourage evaluation activities relative to training by ignoring findings or by penalizing the evaluator. Evaluation findings are often feared by Human Resources Development personnel because of possible cancellation of programs and potential impact on performance appraisals.

Clearly, there is a definite need for training program evaluation expecially objective validation of management training programs. According to Barton-Dobenin & Hodgetts (1975) no one really knows their value in spite of the large number of management training programs available.

Because training represents a major corporate investment, the evaluation process should combine several evaluation strategies. In order to be effective, different questions and stages of training will require different forms of evaluation techniques. Evaluation should also be integrated into the normal operating procedures of the training organization. The purpose is to ensure a flow of evaluation data, to condition managers to use that data, and to lessen the stigma often associated with being evaluated. Smith (1980) calls this the institutionalizing of evaluation processes.

As for the selection process and management training programs, researchers and management agree that selection is a key factor in

training. According to Fitz-enz, Hards & Savage (1980), selection, assessment and training are all interdependent. But few concrete efforts have been made to really establish firm standards based on critical abilities in the selection process relative to management training programs (Sahl, 1980). This process seems to be a subjective exercise based on criteria like need, perceived abilities and on-the-job performance. Fitz-enz, Hards & Savage basically claim that management personnel are selected purely on an intuitive basis. At present, efforts are being made to identify and test basic and/or entry skills in skill training programs, but very little has been done to develop a comprehensive selection approach towards management training programs. The research literature does reflect concern vis-à-vis this situation and different techniques (i.e., assessment center, psychometric measurement) are presently being used and studied. However, there does not seem to be any empirical evidence or support for the use of any special technique by professionals in the area of employee selection.

In summary, research literature calls for the necessity to develop objective validation procedures relative to management training programs. This thesis attempts to develop a comprehensive evaluation approach based on several evaluation strategies which would measure both cognitive and affective domains in a management development program in the banking industry. Special emphasis was placed on organizational objectives as they relate to training, and careful consideration was also given to cost/benefit parameters and to the whole issue of destigmatizing evaluation.

This thesis also attempts to integrate the effects on training results of haphazard selection procedures. As selection has been implicated as an important factor relative to management training programs, the role of selection was therefore studied. Although selection was not controlled for in this study, critical abilities were identified, translated into 'behavioural' traits which were then measured. The aim was to see if trainees with basic identifiable abilities would perform better in the overall training process or whether identifiable skills and abilities are in fact 'critical'. The ultimate purpose of this thesis was to provide a model for evaluation which would include the selection process. Based on a general systems view of training, this model attempts to show the relationship between the training function and the organization it services.

General Information on the Management Development Program

The management training program in question is specific to one banking industry and the main objective of this particular program is to train individuals to become successful commercial lending officers and to provide these individuals with overall management skills.

The Management Development Program was initially implemented in the early 1970's to provide high potential female officers with equal opportunity to compete for positions in management ranks. By the mid 1970's, pressures were applied to allow both sexes to be represented. Training was structured as well as unstructured, that is, in the classroom and on-the-job. The stated objectives of this program to this day are:

- the successful entrance to Management ranks of high potential officers
- to encourage personal growth and development of the candidates.

The methods are:

- to build the participants' self-confidence
- to overcome any obstacles--overt or covert
- to furnish the technical aspects of financial analysis, credit submission, appraisal and administration. To provide an overview and understanding of the role of business in society
- to encourage and assist the participants in their continuing development efforts by providing:
  - a means of exposure to modern management philosophy and practice
  - an opportunity through participation, discussion, discovery and perusal development plans, to improve their overall management skills.

Following the seminar, candidates return to their districts (provinces) to continue on the Management Development Program (on-the-job training).

As stated earlier, the role of selection was studied by identifying critical abilities. With reference to the Management Development Program, the critical abilities of a potential commercial lending officer, as identified by subject matter experts, were thought to be analytical, judgemental and abstract reasoning abilities.

The predictive ability of these measures was assessed against the goals and objectives of this evaluation. Other factors of special interest were age, education, diversification of banking experience and sex.

CHAPTER II

REVIEW OF THE LITERATURE

The present study attempts to ascertain the role of selection in the evaluation of a management training program. In this section, the current status of selection and evaluation research will be examined as it relates to management training programs. Our discussion will, however, begin with a general perspective on evaluation.

The Meaning of Evaluation

Evaluation is a process or set of activities comparing results against goals and established criteria. From an instructional standpoint, evaluation may be defined as a systematic process of determining the extent to which instructional objectives are achieved by pupils (Gronlund, 1981). Evaluation may include quantitative or qualitative descriptions of students, or both, and value judgements concerning the desirability of results. In a very real sense, evaluation is a scientific exercise designed to answer basic questions in a rigorous, neutral, objective and unbiased manner (Monat, 1981).

Evaluation is also generally defined as a decision-making process, and problems are defined as deficiencies that inhibit decision-making (Smith, 1980). The role of measurement procedures is to provide information which will allow the decision-making process to be informed and appropriate. Some decisions are instructional decisions, others are curricular in nature, and others deal with selection, placement or classification. Finally, there are many decisions which, for lack of a better term, could be called personal decisions. Measurement procedures provide information on some of the factors that are relevant

to decisions. The role of educational and psychological assessment provides some of the information in terms of which decisions may be made (Thorndike & Hagen, 1977).

One of the distinctive characteristics of the evaluation process is the use of a wide variety of procedures. Those most relevant to this thesis were mainly placement, diagnostic, formative and summative evaluation procedures.

Placement evaluation deals with student's entry performance, and the goal of placement evaluation is to determine the position in the instructional sequence and the mode of instruction that is most likely to provide optimum achievement for each student.

Formative evaluation is mainly used to monitor learning progress during instruction and to provide continuous feedback to both student (trainee) and teacher (trainer) concerning learning successes and failures. It also allows for revision and modification of the instructional process to suit the needs of the participants.

Diagnostic evaluation, on the other hand, is concerned with persistent or recurring learning difficulties. The main purpose of diagnostic evaluation is to determine the causes of learning problems and to formulate a plan for remedial action.

Finally, summative evaluation is designed to determine the extent to which instructional objectives have been achieved. It also provides information for judging the appropriateness of the course objectives and the effectiveness of the instruction.

As described, evaluation includes a number of techniques. However, evaluation is not merely a collection of techniques--evaluation

is a process--it is a continuous process which underlies all good teaching and learning (Gronlund, 1981). According to Gronlund, evaluation should be guided by a number of operational principles such as identifying the purposes of evaluation and selecting evaluation techniques in terms of these purposes while being aware of their strengths as well as their limitations. Finally Gronlund states that evaluation is a means to an end, not an end in itself for it is a process of obtaining information upon which to base educational decisions.

Training Program Evaluation

Industrial training can theoretically be divided into two categories: structured and unstructured. Cullen, Sawzin, Sisson & Swanson (1976) define structured training as a thorough job analysis used as a basis for self-instructional and/or instructor-based training program that has been systematically developed to train a new worker in logical progression from zero job competency to a specified mastery on the job. The trainee is the focal point of the training activity. On the other hand, unstructured training takes place when no purposeful instructional plan is used to train a new worker; the training is not systematic, and the worker is usually trained by an existing employee while on the job (Cullen, Sawzin, Sisson & Swanson, 1976). Basically, the on-going production output is the focal point of the worker-trainer instead of the training experience of the trainee, and mastery is not defined.

While the merits of structured industrial training are widely

presented in the literature, little if any controlled research is reported (Antil, 1972). This is especially true at the management training/development levels. However, in recent years, the importance of evaluating structured and unstructured training especially at the management training/development levels has surfaced dramatically mainly for economic reasons. Because training represents a major corporate investment, one consequence of this trend is the concern of higher management with cost and quality control of all training operations (Smith, 1980). In other words: how effective is training?--did training have the intended effects, that is, does it provide employees with important knowledge and skills as well as register a measurable impact on job performance and organizational mission (Deming, 1979)? Finally, did training achieve its objectives at reasonable costs (Monat, 1981)?

Many of these key concerns can be addressed through evaluation. Since evaluation is a process or set of activities comparing results against goals and established criteria, a comprehensive evaluation approach should combine several evaluation strategies in order to be effective. According to Monat (1981), these should include cost/benefit analysis, statistical analysis, and experimental design since different questions and stages of training will require different forms of evaluation techniques. Cost/benefit analysis is useful in answering managerial/organizational questions, and statistical analysis/experimental design answer such questions as whether or not training has had the desired effects, or what groups and individuals have benefited most from training. Experimental design is useful especially in enabling the

trainer to impose a high degree of control over the independent variables which affect the dependent variables or training outcomes (Monat, 1981).

Training Evaluation Models

By definition, a model simplifies reality (Smith, 1980). Brethower & Rummler (1976) formulated a model that puts training in perspective as subordinate to the functioning of the overall organization. Their model is based on a General Systems view of training as seen in Figure 1. One of the implications of this model is that training does not function in isolation (Smith, 1980). According to Brethower & Rummler (1976):

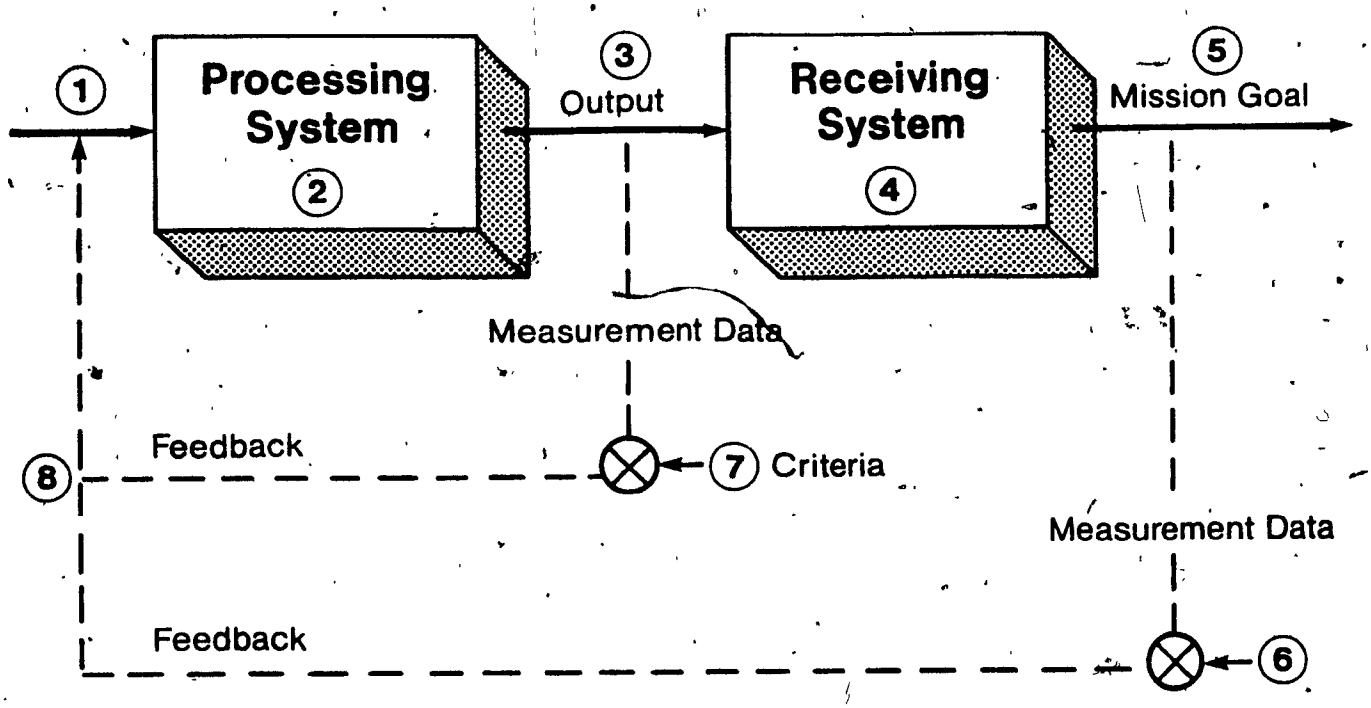
> Training must contribute to the larger, total system. If it does not contribute, then it will cease to function. Also, any attempts to maximize its outputs or effectiveness will be neutralized by the need for the total system to optimize all subsystems (p. 105).

Yet another implication of this model according to Smith (1980), is that evaluation is an information gathering and decision-making process. Basic decisions such as continuing, discontinuing or revising a training program can be made via this model. Finally, a third implication is that each element can be evaluated (Smith, 1980). For example, trainee proficiency at the end of training and trainee contribution to the receiving system can be assessed.

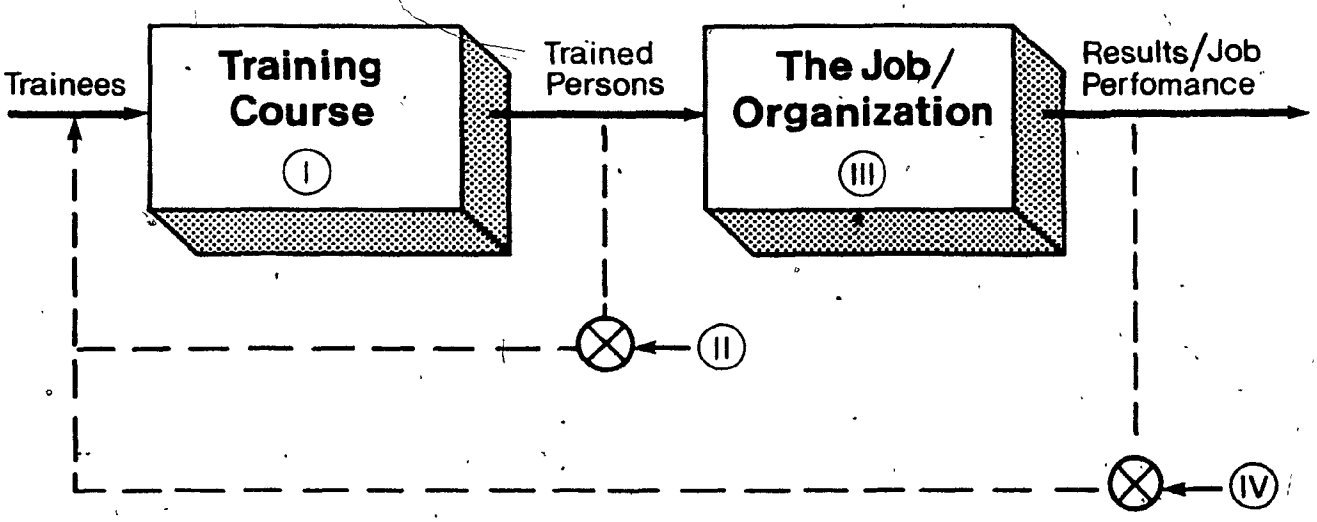
These two authors presented a framework for viewing evaluation alternatives and deciding what type of evaluation is appropriate (Figure 2). Figure 2 combines four of the possible evaluation alternatives with the General Systems model of training. Along with this framework, they devised a planning guide which they called an

Figure 1

A Model of General System Applied to Education



Brethower, Rummler (1976)
Four Levels of Evaluation Model
(Adaptive System)



(I) Are the trainees happy with the course?
(II) Does the training course teach the concepts?
(III) Are the concepts used on the job?
(IV) Does application of concepts impact the organization?

evaluation matrix. This matrix cross-references the four evaluation questions with issues to consider in planning an evaluation. The columns represent these basic considerations, and planning the study amounts to filling in the cells of the matrix (Figure 3).

Critics of this model state that it pictures training as one course and that there is more to training than the training course itself. Shoemaker (1976) developed a model based on the major activities of a training organization, and it is organized around a three-step training process (Figure 4). The Shoemaker model of training operations as seen by Smith (1980) represents a perpendicular or third dimension to the Brethower-Rummler model.

As behaviour and results of behaviour are most important to organizations, an alternative approach to sequencing criteria (i.e., task or job components, training components and organization objectives) was suggested by Cullen. In his study of structured versus unstructured training, Cullen (1978) compared two training approaches by training costs, training returns (behaviour), analysis (results) and summary evaluation. Figure 5 shows the Cullen model. Via this approach where the variables selected are not inclusive, training is evaluated in cost/benefit terms thus responding directly to top management concerns. Consequently, rather than to report results in statistics, economic comparisons are used. The major advantage of cost/benefit analysis is that evaluation is embedded directly in management terms. According to Monat (1981), the results of evaluation become more acceptable to top management and consumers of training because results are reported in their normal everyday language.

Figure 3

Evaluation Matrix

What we want to know	What might be measured	Measurement Dimensions	Sources of data	Alternative Data Gathering Method	Evaluation Criteria
1. Are the trainees happy?					
2. Do the materials teach concepts?					
3. Are the concepts used?					
4. Does application of concepts affect the organization?					

Figure 4

Shoemaker (1976) Model

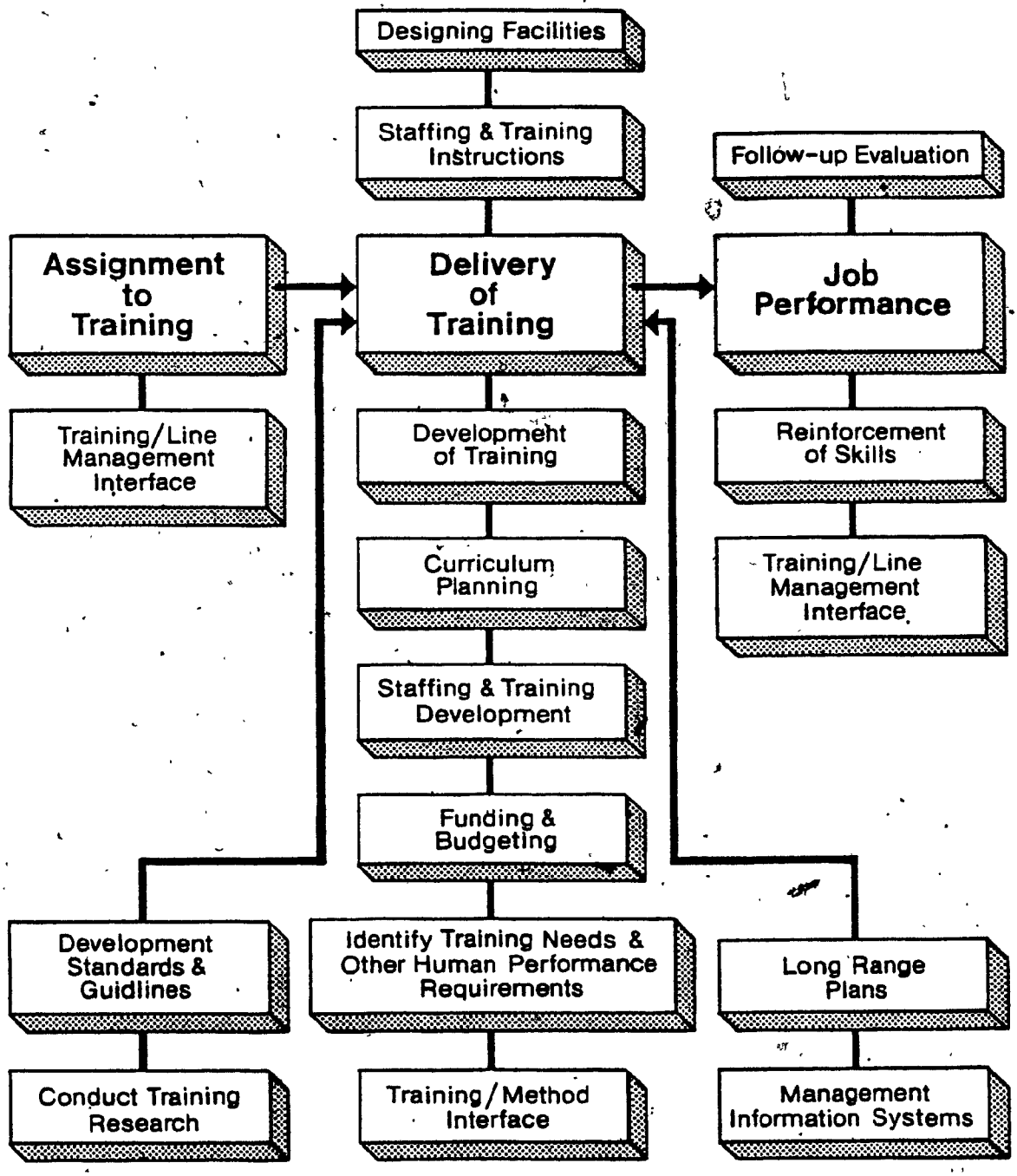
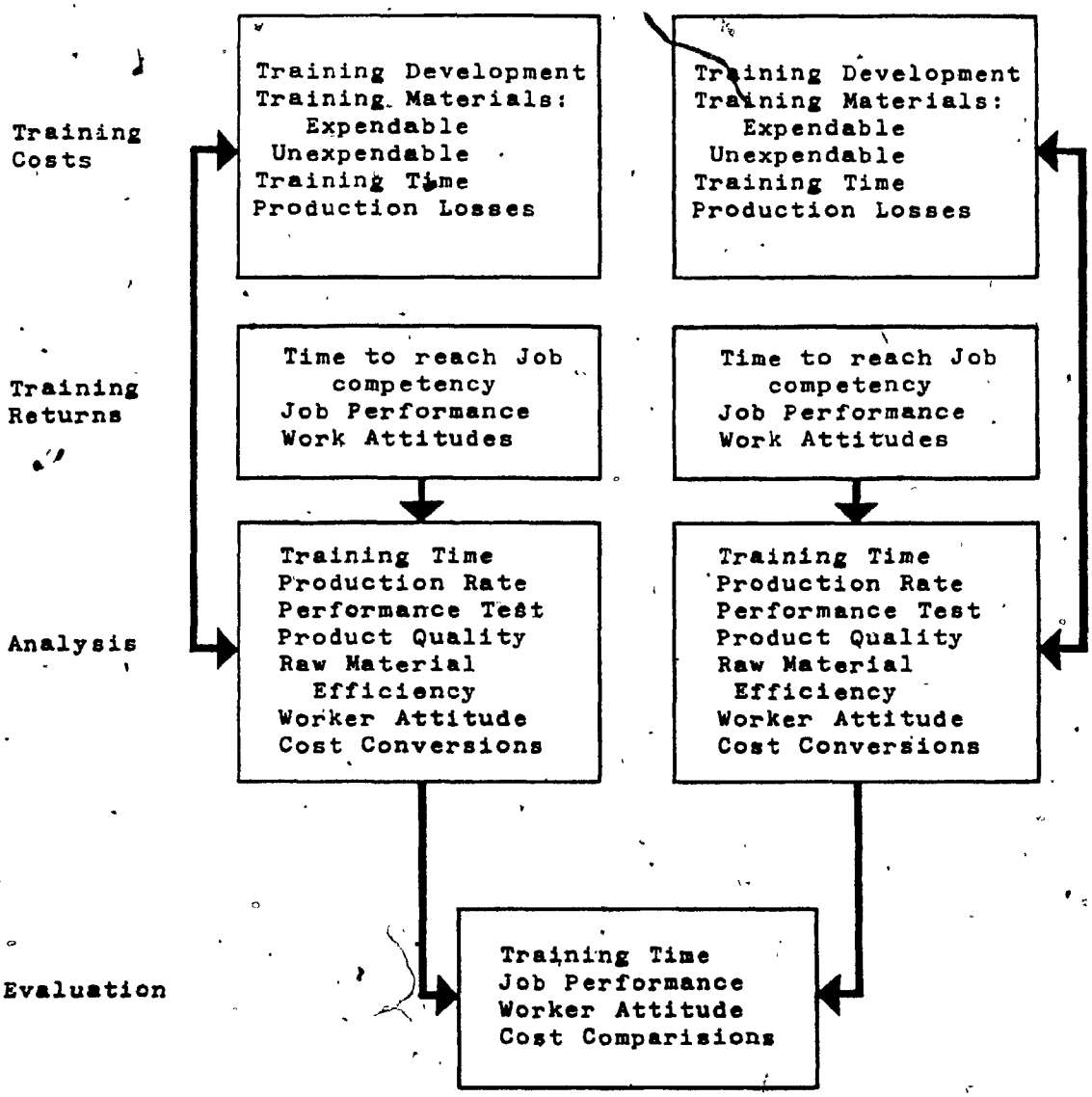


Figure 5

Cullen (1978) Model



But the most widely used concept of evaluation by trainers in industry is Kirkpatrick's (1967) four category model. This model measures:

1. Reaction : feeling of the trainees regarding the program
2. Learning : principles, facts and techniques which were/were not understood
3. Behaviour : on-the-job performance
4. Results : achieved versus desired performance results.

Goldstein (1974) suggests that easy to measure reactions are collected most often, and that few reactions are collected scientifically. It is interesting to note that the four questions used in the Brethower & Rummler model (1976) were the same as those proposed by Kirkpatrick twenty-five years ago.

Regarding the whole issue of training evaluation, Monat (1981) feels that training will gain a greater acceptance if a comprehensive approach to training and development evaluation measures all relevant criteria and if attention is given to management's basic two questions, which are as follows:

1. Did training have the intended effects?
2. Did training achieve its objectives at reasonable costs?

Selection and Management Training Programs

An extensive review of the literature revealed that most management personnel are selected based on criteria like need, perceived abilities and on-the-job performance. Basically, decisions on who to select involve assessing a wide range of intangible individual characteristics and matching these against job requirements which are

often vaguely specified. Experience and technical expertise seem relatively easy to ascertain, but managerial abilities are much more difficult to identify (Fitz-enz, Hards & Savage, 1980).

However, some of the largest and most prestigious firms in the U.S.A. have been using what is called the assessment center technique in order to be in a position to predict the success of individuals before they assume managerial responsibilities and to identify specific managerial weaknesses which could be effectively remedied through management development programs (Millard & Pinsky, 1980). This technique is a direct outgrowth of testing done in the selection of officers for the German military command in the 1930's and was a procedure based on work done earlier by German psychologists. This approach was later used during World War II by the British War Office and the U.S. Office of Strategic Services. Abandoned after the war, the technique was revived and introduced to industry via the AT & T Management Progress Study (1964). This study was based on the concept of simulation. It assumed that a candidate who performed well under simulated conditions would perform well in the actual job.

Basically, the assessment center approach provides data on each candidate, thus allowing a fairly accurate matching of candidates' aptitudes and target job requirements. This process does not rely on previous performance to identify high potential candidates and is seen as being generally objective in that it provides a judgement independent of potentially biased or inapplicable work history information. According to Alexander, Buck & McCarthy (1975), assessment center techniques have been developed for selecting all levels of managers

as well as candidates for executive development.

Millard and Pinsky (1980) feel that there are many strengths and weaknesses involved with this system but if properly constructed and carried out, the assessment center technique is of some value in the selection of individuals for promotion within an organization. They feel that there is also sufficient evidence to argue successfully that the technique can be used as a basis for the development of individualized management programs with special attention given to the areas of weakness shown by individual candidates. They also warn that this tool should only serve as one of a variety of decision-making tools, including criteria such as previously demonstrated technical job knowledge, overall past performance and interpersonal planning and decision-making skills. However, critics argue that the predictive ability of the assessment center technique has never been proven, and research done by Millard and Pinsky (1980) reflects that no empirical evidence has been published which supports the use of assessment as the sole criterion for making selection decisions.

Another selection procedure of interest is psychological testing. Because the aim of psychological testing is primarily to provide objective information (Gronlund, 1981), psychometric measurement and its impact on selection decisions has been examined. Although its impact on selection decisions is seen mostly in the academic admission situation, some studies involving the use of psychometric measurement in employment selection decisions have been conducted (Carroll & Maxwell, 1979). The literature reveals that there is little consistency in the predictors and criteria employed. Some general trends seem to

exist in the employment studies, but no conclusion can be drawn from the available research. Carroll & Maxwell (1979) claim that there is a definite need for psychometricians to restructure testing instruments and procedures to take account of interactions of psychological processes and mental contents in different individuals under different conditions.

In summary, although a great deal of attention has been focused into the whole area of selection evidence, to date, suggests that management personnel are selected rather haphazardedly. Techniques such as job analysis, psychological testing and the assessment center method are currently being used. However, there does not seem to be full support of these or of any other technique by professionals in the area of employee selection. Further research seems to be needed to produce credible reports on which job-related, valid, and reliable selection processes can be based. Rouleau and Krain (1975) state that the scientific method applied to the selection process will enlarge the scope of our knowledge about what can be measured at reasonable cost.

CHAPTER III

THE MODEL

The model which was developed as a result of this study is based upon the open systems theory. Briefly, the notion of open systems implies that a system is a set of interrelated and interdependent elements such that changes in the nature of one component may lead to changes in the nature of other components. Also implied is the existence of some boundary differentiating the system from the larger environment in which it is embedded (Nadler & Tushman, 1969). Katz and Kahn (1966) define a system as a mechanism that imports some form of energy input from the environment, which submits that input to some kind of transformation process and which produces some kind of energy output back to the environment.

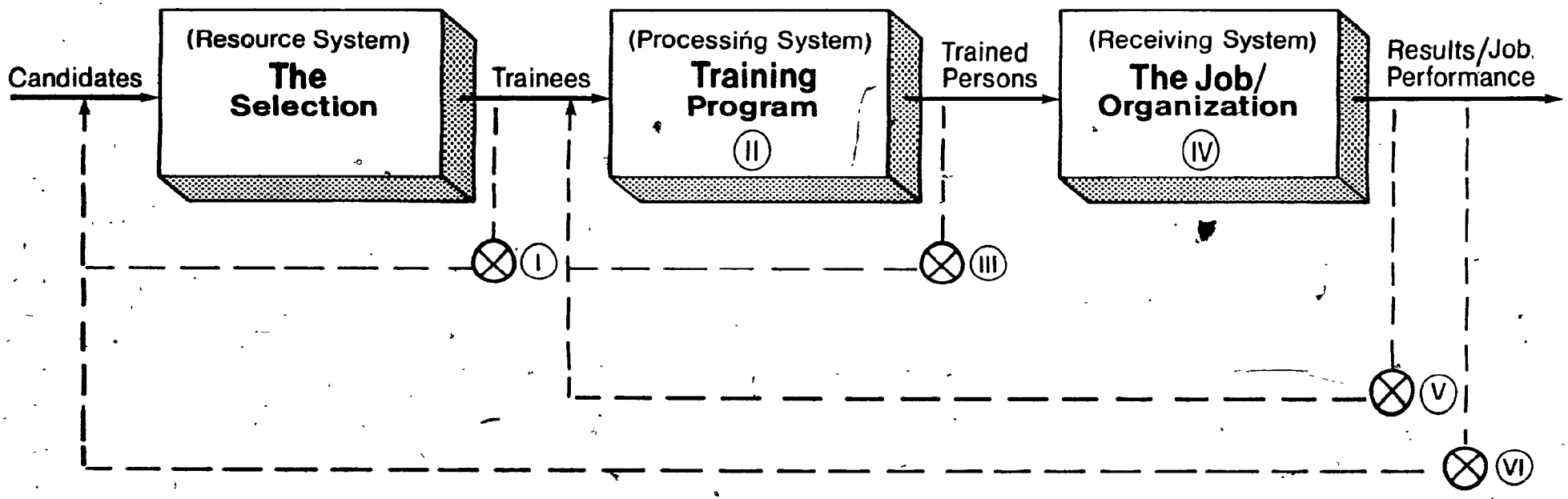
This researcher developed two models based on the open systems theory where it is assumed that organizations are open systems where interaction of inputs lead to behaviour and various outputs. The first model, the Boyle (1982) Evaluation Model A, depicted in Figure 6; is intended as a framework and is an extension of the Brethower and Rummler (1976) Four Levels of Evaluation Model. As this study attempted to ascertain the role of selection in the evaluation of a management program, the focus of the model is on these relationships.

In this model training is first viewed by the resource system which converts input into output. The inputs to the system might be those employees selected by supervisory nomination to attend a training program. The object of the resource system is to differentiate between perceived available resources and actual resources of an organization. The outputs of the resource system are the actual resources or

Figure 6

Boyle (1982) Evaluation Model A

(an Extension)



(I) Did the selection procedure measure all criteria?
(II) Are the trainees satisfied with the course?
(III) Does the training course teach the concepts?
(IV) Are the concepts used on the job?
(V) Does application of concepts impact the organization?
(VI) Is the selection procedure a predictor of performance?

individuals selected to attend the training program. They, in turn, become inputs to the processing system where the training activity actually begins. The outputs of the processing system are the trained employees whose capabilities have been enhanced through training, and these outputs are converted into inputs to the receiving system which, in this model, is the job or work group. This phase might involve job training. Finally, the outputs of the receiving system are the trained employees whose capabilities have been enhanced as a result of job training. The resource, processing and receiving systems are all sub-systems of a larger system, in this case, the organization.

The Boyle (1982) Evaluation Model A provides for six potential levels of evaluation summarized by the following questions for activities:

I. Did the selection procedure measure all criteria?

II. Are the trainees satisfied with the course?

III. Does the training course teach the concepts?

IV. Are the concepts used on the job?

V. Does application of concepts impact the organization?

VI. Is the selection procedure a predictor of performance?

Generally speaking, level I might be admissions criteria for selecting management trainees with "formal" feedback mechanisms to course administrators while level II, trainee attitudes and feelings during the course, might be assessed by informal feedback. Questions for level II could also be adjusted for diagnostic and formative evaluation purposes. According to this model, level III involves measuring trainees at the end of the course to see if they meet proficiency

standards, and level IV deals directly with applicability of concepts during job training. In level V, benefits to the organization from the newly learned performance might be analysed and finally, level VI represents feedback to the training administrators. The role of feedback mechanisms and/or applications is to gather information which will allow the decision-making process, for all aspects of training operations, to be informed and appropriate.

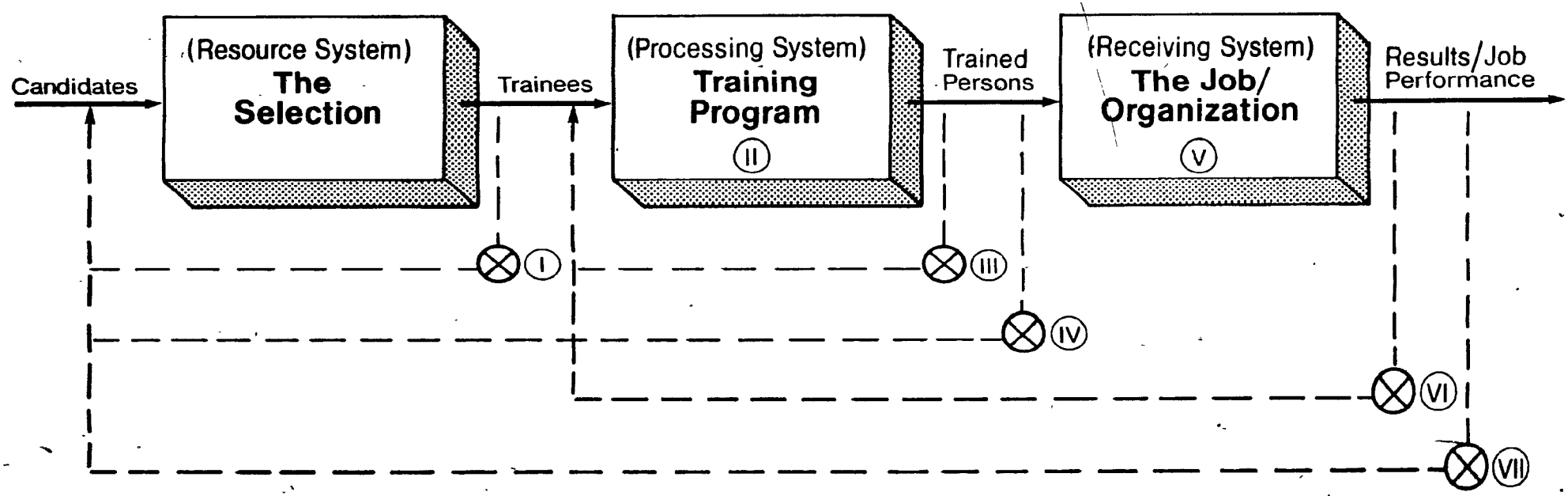
For purposes of this study, the Evaluation Model A was found to be insufficient because it did not include an assessment of the impact of selection on performance in the course. To meet this need, the Boyle (1982) Evaluation Model B was developed which incorporated an additional level of evaluation midway through the model to answer the question: Does the selection procedure predict successful completion of the course?

The improved model with its seven levels of evaluation is displayed in Figure 7 and will be the basis for the discussion of the results.

Figure 7

Boyle (1982) Evaluation Model B

(an Extension)



(I) Did the selection procedure measure all criteria?
(II) Are the trainees satisfied with the course?
(III) Does the training course teach the concepts?
(IV) Does the selection procedure predict successful completion of the course?
(V) Are the concepts used on the job?
(VI) Does application of concepts impact the organization?
(VII) Is the selection procedure a predictor of performace?

CHAPTER IV

METHOD

Subjects

The forty-nine trainees who served as subjects were participants in a Management Development Program at a major Canadian Bank which aimed at developing successful commercial officers with overall management skills. The subjects varied from age twenty-one to forty-nine (overall mean age thirty-three), and sex (male-female distribution was 37-12). Trainees were selected by supervisory and/or personnel nomination based on criteria like need, potential, educational background, actual performance, experience and sex.

The study was presented to the subjects as an opportunity to evaluate the effectiveness of the program, to learn more about themselves and to monitor their progress throughout this one month long course. All subjects were informed that their participation was optional and anonymous and that feedback on test results would be almost immediate. In addition, trainees were advised that their cooperation and participation would perhaps make the difference between continuation and cancellation of the given course due to the projected retirement of the instructor. There was no drop-out rate for any of the achievement and ability testing procedures except for the two overnight assignments, i.e., the case study with a mortality rate of three individuals and the Watson-Glaser Critical Thinking Appraisal with an attrition rate of 23. Regarding the trainee inventories, seven trainees did not complete the second inventory (immediately following the course), and there was an attrition rate of 15 for the third inventory (three months after the course).

The instructor, by participating in the experiment, was allowed the

benefit of a scientific and objective evaluation of his course. The instructor was a senior, high level official of the financial institution, a commercial lender by experience as well as the instructional designer of the Management Development Program. The instructor was highly regarded and well-known not only for his innovative approach to financial analysis, but also for his unconventional and flamboyant teaching style. Trainees selected for participation in his course perceived this opportunity as being a question of honor and prestige eventually leading to promotions and consequently higher income bracket salaries.

Design

This study was a formative and summative evaluation of a management training program which provided continuous feedback to both trainee and trainer and monitored the learning and instructional process. It also tried to determine the extent to which instructional objectives were achieved as well as provided information on the appropriateness of course objectives and effectiveness of the instructional program. Placement and diagnostic evaluation were introduced by using pre and embedded tests to determine entry knowledge and persistent recurring learning difficulties.

Three factors, critical ability, background and sex were isolated in this study for quasi-experimental analysis. The first factor, critical ability, consisted of measuring analytical, decision-making, critical thinking and abstract reasoning abilities. The second factor, background, involved level of education, type of experience, last

position held and district or province. The third factor, sex, consisted of dividing the sexes into two groups for overall test result and analysis.

Materials

The instructor was contacted two months before the experiment and given the general guidelines of the study. All evaluation and testing materials as they were designed by this researcher and with the help of subject matter experts were surveyed by the instructor. His help was enlisted more often than not regarding the highly technical aspects of the course content.

Three inventories were developed to identify the learners' demographics, and to assess the attitudes of the trainees toward the course, its content and delivery, and its usefulness on the job. Content validity was established through the development of questions which reflect the actual content of the course, the job they would be expected to take, and events which had occurred during the instructional process.

In order to rank subjects on their critical abilities, psychological tests were administered. The first, the Otis Self-Administering Test of Mental Ability measured analytical and decision-making abilities. The second, the Differential Aptitide Test, measured abstract reasoning, and the third was the Watson-Glaser Critical Thinking Appraisal Test. These instruments were chosen in consultation with an industrial psychologist and banking experts. Each measured entry skills which pre-management personnel should have in order to become effective

commercial lending officers. The psychological tests were used solely as predictors of performance with the idea of developing or adjusting training to accomodate the needs of individuals who may be "deficient" in the skill(s) said to be assessed.

In this study, pretest data provided baseline information, and subjects' achievement was measured via an embedded test, a case study, and a posttest. The major content categories were:

1. Financial Statement Analysis
2. Corporate/Financial Structure and Collateral Security
   a. scope documentation
   b. value
3. Defining and Assessing Behaviour of Expense
4. Cash Flow/The Pipeline

These instruments were constructed especially for the purpose of this study with the exception of the case study which was taken from the curriculum of the Management Development Program. The pretest consisted of thirty-four true and false items, three different matching exercises, two multiple-choice items, and two short definition items The total number of points on the pretest was one hundred. The embedded test had the same format but tested only content from the first two weeks of instruction. This test consisted of nineteen true and false items, three matching exercises and two multiple-choice items. The total points available on the embedded test was fifty-three. The case study was developed by the instructor. It was one of the many which were used as assignments during the course of this training program. Basically, the trainee had to study the available information, analyse the data and determine whether or not the company in question was credit

worthy. The posttest consisted of thirty-three true and false items and eighteen completion items for a total of fifty-one items. The total number of points on the posttest was seventy-three.

Procedure

The course consisted of one month of intensive study, with only two days off. Work ran from 8:30 a.m. to 10:30 p.m. daily. All participants were housed in a hotel away from all distractions for the entire month.

The evaluation sessions were conducted in one large classroom and during regular class time. Subjects did not know that they were participating in a study until they were told by the instructor immediately prior to the first data collection session. Upon entering the classroom, the instructor who had already been briefed, introduced the researcher and announced to the subjects that a study was to be conducted to determine the effectiveness of the Management Development Program. Subjects were asked to cooperate but were also told that their participation was optional. Subjects were asked to follow all instructions as carefully as possible. They were also given a code so as to preserve anonymity. This was thought to be necessary in view of fears which usually accompany evaluation procedures in industry.

The coded packages including the first trainee inventory and the pretest were distributed and subjects were asked not to open the packages until directed to do so. The researcher outlined the experimental procedure and subjects were asked to remove the material from their packages and to first begin with the trainee inventory followed by the pretest. Subjects were given sixty to ninety minutes

to complete the material. At the end of the first session, trainees were thanked for their cooperation and were told that results of the pretest would be available within forty-eight hours. Participants were also told of the tests to come, but the exact schedule was not given.

The embedded test was administered at the end of the following week. This test was administered in exactly the same manner as the pretest. The case study was given early in the third week and given as an overnight assignment. Subjects were given verbal and written instructions and were asked to complete this test individually.

The three critical ability tests were given in the middle of the third week. Instructions were both verbal and written, and subjects were given twenty-five minutes to complete the Otis Self-Administering Test of Mental Ability, thirty minutes to complete the Differential Aptitude Test, and finally, they were given the Watson-Glaser Critical Thinking Appraisal as an overnight assignment. Included in this package were instructions. At the beginning of the above session, subjects were also given a ten minute Math Ability test which was used by this researcher as a warm-up exercise and was not to be used in the overall analysis of the critical abilities.

Finally, at the end of the fourth week, subjects were given a post-test and a second trainee attitude inventory. This test and inventory were administered in the same manner as were the pretest, the first attitude inventory and the embedded test.

All test results were given within forty-eight hours except for the critical ability tests which had to be analysed by an industrial

psychologist. Subjects received group feedback during class time, and individual results were given after class time.

The researcher was present constantly during the one month long training program as it was thought to be important within the evaluation context.

Finally, the third trainee inventory was sent to the participants three months after the course with accompanying personalized letter and specific instructions.

CHAPTER V

RESULTS

The purpose of this study was to develop an evaluation strategy which would measure the effectiveness of a training program and to study the role of selection variables to see whether or not they affected performance in the course.

To determine the effectiveness of the program, the achievement of the trainees was measured via an embedded test, a case study, and a posttest on the course content. Pretest data provided baseline information. The effectiveness of the program was also assessed by measuring trainee attitudes toward the course, its content and delivery, and its usefulness on the job.

The role of selection was evaluated by measuring the relationship between performance and a number of predictors which included demographic variables, critical abilities, and prior knowledge as measured by the pretest. The demographic variables that were examined were age, sex, education, experience, and last position held. Critical abilities were evaluated by the following psychological tests:

- Otis Self-Administering Test of Mental Ability
- Differential Aptitude Test
- Math Ability

The Watson-Glaser Critical Thinking Appraisal was not included due to the high attrition on that particular test.

Test performance on objective tests was scored by number correct. Case study was scored by correct number of observations and statements. Psychological tests were scored and analysed by an industrial psychologist and composite scores were used. In order to allow comparisons between achievement tests with different total scores, the

the scores were converted to percentages based on the testing norms before the data were analysed.

Raw Scores Means and standard deviations for the pretest and three achievement tests appear in Table 1. The analysis of the data using a one-way analysis of variance showed a highly significant increase over tests ($F = 573.60$, $df = 2/96$, $p < .001$). A Post Hoc comparison was used on the pre, embedded and post tests to determine the means between which significant differences existed. Tukey's HSD multiple comparison procedure yielded significant differences between all three means, each at the .01 level.

Table 2 shows the Pearson product-moment correlation matrix for the pretest and three achievement tests. The highest correlation of .60 demonstrates that trainees who succeeded in the embedded test halfway through the course were more likely to succeed on the posttest. As expected, no systematic relationship was found between the pretest and case study ($r = -.04$) and between embedded test and case study ($r = 0$). Only a slight correlation of .23 was found between the case study and posttest indicating that the case study, a performance test, and the objective posttest were measuring different facets of achievement.

Attitude Toward Training Program

The effectiveness of the training program was also assessed by measuring attitudes toward the training, its content and delivery, and its usefulness on the job. Tables 3, 4, and 5 report the responses of the trainees before the course, immediately following the course, and three months after the course.

TABLE 1

Means and Standard Deviations for Pretest and Three Achievement Tests

	$\bar{X}$	S.D.
Pretest	44.91	12.3
Embedded Test	76.08	8.2
Case Study	79.75	20.3
Posttest	93.59	4.2

NOTE: The means and standard deviations are expressed in terms of percentages.

TABLE 2

Correlation Matrix for the Pretest and

Three Different Achievement Tests

Type of Test	1	2	3	4
Pretest (1)	1.00	.41 **	-.04	.31 *
Embedded Test (2)		1.00	.00	.60 ***
Case Study (3)			1.00	.23
Post Test (4)				1.00

* $p < .05$
** $p < .01$
*** $p < .005$

In the first inventory (Table 3), responses revealed that most trainees (63.2%) had already had previous in-house training while 36.7% had received no prior formal or structured training (in-house). When asked what they hoped to gain from the Management Development Program, 86% of the participants expected to acquire expertise in financial analysis techniques. In an attempt to measure the degree of expectation, trainees were asked whether or not they expected this training program to influence their career. The majority of the trainees (69.4%) felt that this program would have a positive influence; 2.0% responded that it would not; and 26.5% did not know. Because selection was a variable of interest in this study, trainees were asked how and by whom they had been selected. The highest frequencies obtained revealed that 32.7% of the trainees felt that they had been selected because of potential, and 22.4% because of experience and performance. Frequencies showed that 51% had been selected by district personnel departments, 18.8% by supervisory nomination and personnel departments, 14.6% by training departments, 10.6% by 'other' means, and 2.0% did not really know. Finally, when asked to express how they perceived this training experience from a positive and negative point of view, 61% of those who responded to this question felt that it would be an excellent learning experience and 69% could not express any negative perceptions vis-à-vis the training activity.

The second inventory (Table 4) dealt specifically with attitudes about the training program after its delivery. This section will report only global findings as a question by question analysis would be far too lengthy. Trainees provided above average ratings for program

TABLE 3

Trainee Responses to Attitude Inventory I

Q1. Is this your first seminar at the Bank? If not, please specify the ones which you have attended.

18	no seminars
11	one seminar
12	two seminars
8	several

Q2. What do you hope to gain from this seminar?

42	technical skills/financial analysis
2	learning
4	self-development/confidence
1	blank

Q3. What are your concerns and expectations regarding this seminar?

Concerns

10	no prior knowledge
1	length of seminar
1	family absence
6	technical course content/quantity
1	job application of concepts
3	group size
27	blank

Expectations

10	high degree of learning
7	theory and technical and analytical skills
1	high quality of instruction
9	knowledge (general business)
2	career development
3	confidence
1	interesting course content
16	blank

Q5. How do you feel you were selected to attend this seminar (i.e., education, experience, potential, etc.) and by whom (supervisor, personnel)? No names, please.

A.

1	education
7	experience
16	potential
3	performance
2	education/experience
3	education/potential
11	experience/performance
1	potential/performance

B. By whom were you selected?

4	supervisor
25	personnel
3	training department
1	do not know
5	other
5	supervisor/personnel
4	personnel/training department

Q6. How do you perceive this experience from a positive and negative point of view?

Positive

3	peer exposure
21	learning
3	confidence
5	instructor
2	career development
15	blank

Negative

1	lack of experience
5	length of seminar
1	application of concepts
4	family absence
1	group size
3	theory (too much)
34	blank

TABLE 4

Trainee Responses to Attitude Inventory II

Q1. On a scale of 1 to 10 (totally ineffective to extremely effective) please rate this seminar.

$\bar{X}$ 9.6
S.D. .71

Q2. Using the same principle, rate the following:

(a) instructor's knowledge of subject matter — $\bar{X}$ 9.9, S.D. .26

(b) organization and coverage of subject matter — $\bar{X}$ 9.2, S.D. 1.08

(c) case study approach — $\bar{X}$ 9.0, S.D. 1.11

(d) team work — $\bar{X}$ 8.2, S.D. 1.68

(e) handouts — $\bar{X}$ 8.9, S.D. 1.05

Q3. Did this seminar meet your expectations?

39 to a great extent
2 to some extent
0 not at all
1 no comment

How?

35 financial analysis skills
1 job applicability
6 blank

Q4. Do you feel you benefited professionally and personally from this course? In what ways?

Professionally

42 financial analysis

Q4. Personally

14	peer exposure
19	confidence
3	job satisfaction
1	career development
5	no personal benefits

Q5. Do you expect your career will be influenced by your participation in this seminar? In what ways?

31	positive
2	negative
9	do not know

How?

13	competence
7	confidence
16	career development possibilities
6	blank

Q6. Did the course assist you in developing a better understanding of:

	3 Not at all	2 To some extent	1 To a great extent
(a)	business strategies		$\bar{X}$ 1.5 S.D. .67
(b)	financial analysis		$\bar{X}$ 1.0 S.D. 0
(c)	credit judgements		$\bar{X}$ 1.3 S.D. .468
(d)	collateral security		$\bar{X}$ 1.8 S.D. .50
(e)	problem solving		$\bar{X}$ 1.3 S.D. .48
(f)	decision-making		$\bar{X}$ 1.3 S.D. .48
(g)	managing one's own potential		$\bar{X}$ 1.7 S.D. .692
(h)	general business		$\bar{X}$ 1.3 S.D. .48

Q7. What aspects of this course did you find MOST helpful?

10	case study approach
27	credit analysis/techniques
2	the instructor
3	managing one's own potential

Q8. What aspects of this course did you find LEAST helpful?

9	overall bank and business strategies
1	length and intensity of seminar
3	study groups
2	guest speakers
3	collateral security
1	diverse backgrounds
1	materials
1	no business development tips
1	financial analysis (prior knowledge)
1	repetitive
19	blank

Q9. Have you any suggestions for improving this seminar?

3	time off
1	too many case studies
18	smaller study groups
15	no suggestions
2	too repetitious
1	length of course (too short)
1	too many course objectives
1	art of business development

Q10. Do you feel this course should be continued?

41	yes
1	no

Q11. Comment on the length of the course.

3	too long
8	too short
28	adequate

Q12. Comment on the location of this course.

27	good
1	bad
11	average
3	indifferent

Q13. How do you perceive this experience from a positive and negative point of view?

Positive

1	case study approach
1	excellent seminar
24	knowledge acquired
4	peer interaction
1	intensity of instruction
4	confidence
1	the instructor
6	blank

Negative

2	peer interaction
3	length of seminar
1	schedule (no time off)
6	family absence
2	unknown job situation
1	diversity of experience
1	applicability of concepts
26	no negative perceptions

Q14. In your opinion, does it make any difference who should attend this seminar (i.e., education versus experience)?

28	no difference (education versus experience)
1	diversity important
1	motivation
4	similar backgrounds
1	prior knowledge in lending
3	selection according to qualifications
4	blank

Q15. How do you generally feel about the whole group?

34	positive
4	negative
4	blank

Q16. Comment on the following:

Workload

23	adequate
12	heavy
5	too light
2	blank

Testing

32	adequate
1	heavy
4	no value
5	blank

Q17. Do you feel testing should be allowed when it is conducted solely to measure the degree of learning and the progress of a group?

32	yes
3	no
5	indifferent

Q18. Do you feel this type of testing was:

35	useful
2	useless
4	indifferent

Q19. Has the testing business upset you in any way?

5	yes
37	no

Q20. How would you now rate your self-confidence regarding commercial credit as a direct consequence of this seminar? (Below average = 1, above average = 10.)

$\bar{X}$ 8.1
S.D. 1.41

Q21. Do you feel others might benefit from exposure to a program such as this?

42	yes
0	no

Q22. How would you rate the CA presentation?

0	below average
17	average
24	above average
1	blank

Q23. Do you feel that an on-going career development program in commercial credit at different levels should be offered to you by the bank?

42	yes
0	no

Q24. Could this type of course be given at the district level?

11	yes
23	no
8	blank

Q25. If you had any say at all, what changes would you make regarding this seminar?

Generally, most participants felt that no changes were necessary. However, some trainees indicated a preference for smaller study groups. Surprisingly, of those who responded, four trainees felt that the training program should be extended.

Q26. This section was used by the participants to express their thanks to the instructor of the Management Development Program.

effectiveness, instruction, course organization, case study approach, materials and moderately high ratings on team workshops. Most of the trainees (79.6%) felt that their expectations were met (i.e., financial analysis techniques), and 63.3% felt this training program would positively influence their career as far as expertise in commercial lending and career development possibilities. When asked to rate specific course content categories, trainees indicated a moderate to high degree of satisfaction in all categories except in the area of collateral security where 20.4% were quite dissatisfied. As expected, financial analysis was seen as the most helpful course content category while general business strategies, such as the personnel function, was seen as the least helpful category.

Of special interest to this researcher were attitudes toward evaluation procedures. Most (65.3%) felt that evaluation should be part of all training activity, 6.1% felt it should not, 10.2% were indifferent, and 18.4% did not respond. When asked whether or not testing with feedback was useful, 71.4% had positive reactions, 4.1% were negative, 8.2% were indifferent, and 16.3% did not respond. Trainees were also asked whether or not they found the evaluation procedure upsetting. Ratings reveal that 10.2% were in fact upset, while 75.5% were not and 14.3% did not respond. Finally, as per the general comments section, the vast majority of the trainees attributed the success of the training program to the instructor.

A follow-up questionnaire was sent to all participants of the course three months after the training program in order to determine whether or not concepts learned or acquired at the course were relevant,

TABLE 5

Trainee Responses to Attitude Inventory III

Part I: GENERAL INFORMATION

Q1. Are you still on the Management Development Program?

23	yes
8	no
3	other

Q2. If NO, what is your present position?

3	account manager
3	assistant manager branch lending
3	manager branch lending
3	credit officer
21	blank

Q3. If YES, when do you expect to complete the Management Development Program and in what capacity?

2	account manager
5	branch manager
13	assistant manager commercial loans
2	overseas assignment
2	unknown
9	blank

Range: (1 to 4 months)
$\bar{X}$ 3 months

Part II: UPDATE

On a scale of 1 to 10, please rate the following:

Q1. To what extent is the knowledge acquired at the Management Development Seminar relevant to your present job/duties? (Totally irrelevant = 1, extremely relevant = 10.)

$\bar{X}$ 7.9
S.D. 2.93

Q2. How would you rate your degree of INVOLVEMENT in commercial credit at your present job? (Totally uninvolved = 1, extremely involved = 10.)

$\bar{X}$ 7.0
S.D. 2.06

Q3. Rate the USEFULNESS of the concepts learned (knowledge acquired) at the Management Development Seminar in relation to your present job/duties. (Totally useless = 1, extremely useful = 10.)

$\bar{X}$ 7.7
S.D. 2.75

Q4. To what extent have you been able to APPLY new concepts (knowledge acquired) i.e., Altman Formula, ratios, etc. at your present job? (Not at all = 1, to a very great extent = 10.)

$\bar{X}$ 5.9
S.D. 2.80

Q5. Generally speaking, how would you NOW rate your SELF-CONFIDENCE regarding commercial credit as a direct result of the Management Development Seminar? (No confidence = 1, extremely confident = 10.)

$\bar{X}$ 8.0
S.D. 1.34

Q6. How would you rate your present ON-THE-JOB training program in commercial credit? (Totally ineffective = 1, extremely effective = 10.)

$\bar{X}$ 6.4
S.D. 2.56

Part III: PREDICTIONS

This section deals with YOUR hopes and expectations once you have completed the Management Development Program.

To the best of your knowledge and experience at the bank, please rate the following:

Q1. Rate your chances of obtaining a position in commercial lending once you have completed the Management Development Program. (Below average = 1, above average = 10.)

$\bar{X}$ 7.3
S.D. 2.62

Q2. Rate your chances of obtaining a "responsible" position in commercial lending once you have completed the Management Development Program. (Below average = 1, above average = 10.)

$\bar{X}$ 7.1
S.D. 2.62

Q3. To what extent will the knowledge acquired at the Management Development Seminar be RELEVANT to your EXPECTED position/job? (Totally irrelevant = 1, extremely relevant = 10.)

$\bar{X}$ 8.6
S.D. 1.66

Q4. Do you expect the concepts learned at the seminar will be USEFUL to you in your FUTURE position/job? (Totally useless = 1, extremely useful = 10.)

$\bar{X}$ 9.1
S.D. 1.55

Q5. To what extent will you be able to APPLY new concepts (knowledge acquired) in your EXPECTED job? (Not at all = 1, to a very great extent = 10.)

$\bar{X}$ 8.0
S.D. 1.80

Q6. Estimate your degree of SELF-CONFIDENCE regarding commercial credit upon completion of the Management Development Program. (Below average = 1, above average = 10.)

$\bar{X}$ 8.3
S.D. 1.40

Part IV: EVALUATION

The aim of this section is to receive objective feedback on how you NOW feel about the measurement procedures used in the evaluation of the Management Development Seminar/Program.

Q1. What are your feelings regarding this type of evaluation procedure?

26	positive
1	negative
7	indifferent

Q2. Explain.

19	favorable due to the necessity of evaluating training programs
1	favorable because of individual progress assessment
1	time consuming
2	not enough information on how results are to be used
10	blank

Q3. General Comments:

Comments received were, for the most part, used to express special thanks to the instructor, his assistant and to this researcher. Also, most participants requested copies of the final report of this study.

useful, and applicable on the job (Table 5). Trainees were also asked to rate their degree of involvement relative to commercial credit during their ongoing job training program. Trainee attrition rate was 30.6%.

More than one-half of those who responded felt that concepts acquired were relevant and useful in their present job situation. The spread, however, was wider relative to applicability of concepts where 16.2% did not really apply the concepts, 16.3% moderately applied concepts while 36.7% did apply the concepts to a very great extent. As for the degree of involvement relative to job training in commercial credit, 14.2% had below average involvement, 16.3% were average, and 38.8% were above average. Generally speaking, trainees were hopeful that they would be able to fully apply knowledge acquired at the training program in future job assignments in commercial lending. Trainees were also reasked their present feelings toward the evaluation procedures used during the course. Of those who responded, 53.1% were positive, 2.0% negative, and 14.3% were indifferent.

Selection Variables

As stated earlier, the role of selection was assessed by measuring the relationship between performance in the course and demographic variables, critical abilities, and prior knowledge as measured by the pretest.

Table 6 presents the absolute and relative frequencies of the demographic data variables. About 75% of those who attended the training program were male, and only 25% were female. When education was broken down into pertinent categories, 63.3% had no post secondary education.

TABLE 6

Absolute and Relative Frequencies For Demographic Data

Sex	Absolute Frequency	Relative Frequency (%)
Male	37	75.5
Female	12	24.5

Education	Absolute Frequency	Relative Frequency (%)
High School	31	63.3
College	4	8.2
B.A.	8	16.3
M.A.	3	6.1
M.B.A.	2	4.1
Missing Cases	1	2.0

Experience	Absolute Frequency	Relative Frequency (%)
New	7	14.3
Branch Administration	11	22.4
Commercial Credit	3	6.1
Consumer Loans	20	40.8
District Officer	8	16.3

Last Position Held	Absolute Frequency	Relative Frequency (%)
Consumer Loans	16	32.7
Commercial Loans	6	12.2
Administration/District	9	18.4
Administration/Branch	11	22.4
New	6	12.2
Missing Cases	1	2.0

District	Absolute Frequency	Relative Frequency %
Atlantic	2	4.1
British Columbia	5	10.2
Saskatchewan	1	2.0
Manitoba	3	6.1
Alberta	12	24.5
Ontario	14	28.6
Quebec	5	10.2
Head Office	1	2.0
International	6	12.2

NOTE: Age = 21-49
Mean = 33

Banking experience and last job assignment prior to training were mainly in the areas of consumer loans (40.8%, 32.7%), and branch administration (22.4%, 22.4%). Age, last position held, sex and district are listed in Table 6, but were dropped from the analysis as they were found to provide little additional useful information.

To determine whether or not education contributed towards performance on the course, a two-way analysis of variance was conducted on education by test position factors. When education was classified as high school and post high school, the results of the analysis of variance disclosed that there was a significant difference between the two levels of education, where trainees with post high school education demonstrated higher achievement ($F = 3.02$, $df = 2/46$, $p < .05$). There was also a significant positive effect on achievement from pretest to embedded and posttest ($F = 86.21$, $df = 2/92$, $p < .000$). No significant interaction was present between education and achievement.

To determine whether or not systematic relationships existed between experience and achievement, Chi-square tests were used. Significant results were found when experience was broken down into five categories (i.e., consumer loans, commercial loans, administration/district, administration/branch, new), and they are as follows:

Pretest and experience : $x^2 = 58.08$, $df = 4$, $p < .01$

Embedded test and experience: $x^2 = 21.60$, $df = 4$, $p < .01$

Case study and experience : $x^2 = 75.44$, $df = 4$, $p < .01$

In the above, positive systematic relationships between achievement and experience were present at the commercial loans and branch administration levels. Prior knowledge in commercial lending evidently

played an important role on achievement as did branch administration. It is felt that branch administrators receive a certain amount of exposure to commercial lending due to the very nature of their work. Consequently, positive relationships with achievement were present.

Predictor Variables

Regression analyses were performed on several of the selection variables to assess their relative predictive abilities. When using education as a predictor variable, the multiple R on the pretest criterion variable was .177 (not significant). However, for the embedded test criterion variable, the multiple R was .261 (marginally significant at the .07 level), and for the case study criterion variable, the multiple R was .251 (marginally significant at the .09 level). Finally for the posttest criterion variable, the multiple R was .162 (not significant).

To determine whether or not the psychological tests were effective in predicting achievement on the course, they were used as independent variables in the multiple regression analysis. The multiple R on the pretest criterion variable was .431 (significant at the .02 level) and for the embedded test criterion variable, R was equal to .513 (significant at the .003 level). No significance was achieved for both the case study and posttest criterion variables. Altogether, these findings raise doubts on the value of solely using psychological measurement to predict performance, as the case study and posttest were the two principle indicators of achievement.

Similarly, when education and psychological tests were combined together as independent variables in the multiple regression analysis,

the multiple R on the pretest criterion variable was .433 (marginally significant at the .06 level) and for the embedded test criterion variable, the multiple R was .516 (significant at the .01 level). No significance with this set of combination in the multiple regression analysis was achieved for the case study and the posttest criterion variables. These findings seem to also raise questions in the predictive value of psychological testing.

In an attempt to see whether or not a better prediction could be established with another combination of predictor variables, education and prior knowledge as measured by the pretest were studied and analysed. The multiple R on the embedded test was .463 (marginally significant at the .06 level) whereas for the case study criterion variable, the multiple R was .251 (not significant). For the posttest criterion variable marginal significance was reached at the .07 level where the multiple R was .336.

Another conbination of interest to this researcher was that of the psychological tests and the pretest. The multiple R for the embedded test was .573 (significant at the .002 level). However, no significant levels were reached with this combination of independent variables for both the case study and the posttest.

Finally, when using education, psychological tests and the pretest as predictor variables, the multiple R for the embedded test criterion variable was .575 (significant at the .005 level). For both the case study and the posttest, no significant effects were present.

CHAPTER VI

DISCUSSION

Although the central theme of this study concerned itself with selection, questions related to program effectiveness were also relevant. An interesting way to discuss the findings of this study is in the context of the Boyle (1982) Evaluation Model B presented in Figure 7. Incorporating the selection procedure into a training model generated seven different kinds of assessment which were all summarized by the following questions:

I. Did the selection procedure measure all criteria?

II. Are the trainees satisfied with the course?

III. Does the training course teach the concepts?

IV. Does the selection procedure predict successful completion of the course?

V. Are the concepts used on the job?

VI. Does application of concepts impact the organization?

VII. Is the selection procedure a predictor of performance?

Boyle (1982) Evaluation Model B is more appropriate for this study than Model A because it includes an additional question (IV) about the role of selection on course performance, which is central to this study. The first five questions will be discussed in order. The final two questions were beyond the scope of this study and will not be discussed.

Did the Selection Procedure Measure All Criteria?

As was discussed previously, the candidates for the training program were selected on an informal basis with no explicit criteria. It was therefore the purpose of this study to determine whether certain

demographic variables, critical abilities and prior knowledge of the course material reflected successful performance in the course. The selection criteria were chosen by an analysis of what factors were thought to be relevant to acquisition of the concepts of commercial lending. In that the list of variables measured was not exhaustive, the results can answer this question only speculatively. However, appropriate and, more importantly, inappropriate criteria for future programs were identified.

The criterion assessed during this study and found to play a major role in performance on the course was level of education, and is discussed extensively under question IV along with other variables. However, after prolonged exposure to the training program, it is the opinion of this researcher that other factors which were not mentioned by the subject matter experts may have affected performance. Because of the sheer volume of reading material and documentation required during the training program, it is possible that reading ability -- including reading speed and vocabulary -- may have played a significant role. A second factor which might have affected performance, especially on the case study, is the ability to perform specialized mathematical calculations related to the content. Perhaps a short math test reflecting the necessary prerequisites and involving calculators would have been an effective addition to the selection criteria, or as part of the introductory instruction. It is noteworthy that both of these factors are likely to be at least somewhat related to educational experience.

More complex factors such as motivation and study habits clearly also play a role in course achievement. Both are, however, difficult

or possibly unprofessional to control or manipulate beyond standard instructional practice.

Are the Trainees Satisfied with the Course?

From informal feedback during the course, and from the two attitude inventories given immediately following completion of the course and after three months, it was clear that trainees were more than satisfied with the course. The trainees were aware of the excellent reputation of the instructor and felt that it was an honour to be able to attend the training program. Upon completion of the course, eighty percent of the trainees felt that their high expectations were justified, especially in the area of financial analysis. However, one area of dissatisfaction was the large size of the study groups (7) which, it was thought, hampered effective trainee interaction and involvement in collective assignments.

Another area of dissatisfaction that emerged three months later was that almost half of the trainees who responded to the follow-up inventory found that they were not called upon to apply the concepts learned in the training program while job training. This problem will be discussed in further detail under question V. It should be remembered that this problem may not be so much a fault in the training program as a problem in resource management. However, because unstructured training (on-the-job) is most difficult to control, techniques such as job analysis should nevertheless be conducted to identify which skills are in fact associated with the position of a commercial lender. This information could be developed and/or expanded by district training departments to suit the needs of each district and could serve as guidelines for job training officers.

Does the Training Course Teach the Concepts?

Performance in the training program was evaluated summatively by two criteria: an objective posttest and a case study. The posttest corresponded to the pretest and sampled as comprehensively as possible the objectives of the course to ensure the content validity of the instrument. The case study required a deeper probing of a particular application. It was designed to have high criterion validity because it measured behaviours which closely reflected actual on-the-job performance.

The scores on the posttest were significantly higher than those on the pretest, indicating that the training program was successful in teaching the concepts. Students reached a high level of mastery on the posttest (94%) in spite of the very intensive nature of the instructional program. The largest gains were made during the first half of the course, where students moved from 45% on the pretest to 80% on the embedded test.

The learners also produced a very respectable 80% on the case study, suggesting that the skills were not simply acquired in an academic fashion, but could be applied. Perhaps more emphasis could be placed on case studies during the second half, especially in light of their mastery of the basic content during the first half.

Does the Selection Procedure Predict Successful Completion of the Course?

The central focus of this study was to explore the effect of selected entry variables on performance in the training program. Those variables which are found to be highly related to performance could be used as explicit criteria for selection of future candidates.

Learning and Educational Level As stated in the results section, there was a significant difference in learning by education when the latter was collapsed by high school versus post high school. Greater education led to relatively higher levels of learning in the program. The instructional technique, however effective, was unable to overcome the basic educational differences.

Performance and Job Experience The results revealed, via the pretest and embedded test, that experience played a significant role on performance at the beginning of the program but was later neutralized, as seen on the posttest where no significant differences were present. As for the case study criterion variable, experience was seen to be a significant positive factor on performance suggesting the importance of special technical skills acquired through job experience. Commercial lenders and branch administrators turned in superior results.

The major tool for examining the effect of the different entry variables on performance was multiple regression. The entry variables chosen for inclusion in this analysis were education, intellectual variables, and prior knowledge as measured by the pretest.

The results of the Multiple regression analysis illustrate that education had a marginal effect on performance on the embedded and case study tests but no significant effects on the pre and post tests. When the pretest was combined with education for analysis, prediction on the posttest produced a marginally significant effect ($p < .07$).

Psychological testing with and without education significantly predicted pre and embedded tests, but had no significant effects on the later tests. This suggests that initial differences were effectively

neutralized by the end of the training program. When the pretest and the education factor were coupled with the psychological test in the multiple regression analysis, only the embedded test produced differences. Therefore, psychological testing with and without other variables was found to have predictive value but only at the initial stages of the program.

To conclude, almost all of the above predictor variables initially had predictive validity. However, no predictive validity was found to be present for the posttest and the case study (although education was marginal (.09)). Based on these results, the influence of the instruction tends to dissipate the use of psychological tests and persists only with broader factors such as education.

Are the Concepts Used On-the-job?

In the follow-up inventory the trainees responded to several questions regarding the usefulness of the training program. In general, the trainees remained positive about what they learned but did not, in all cases, get to apply concepts on the job (60%). Because many of these concepts (e.g., the Altman Formula) involve complex technical analyses, the available time and workload on the job environment (i.e., the number of accounts) may not allow for application of some of the concepts learned at the training program. Also, the job training officers may not be necessarily proficient with some of these concepts and may consequently discourage their use during job training.

CHAPTER VII

CONCLUSION

To fully understand this study, one must look at the circumstances in which it was conducted.

First, as discussed in the rationale and the review of the literature, although training is a major investment, the evaluation of training programs, especially at the management development level, does not prevail in industry. The present study was the first of its kind ever undertaken at this multi-national corporation, and it was extremely important for this researcher to explain at length every aspect of this 'pilot' evaluation research project to the concerned authorities who, incidentally, were interested in implementing such procedures within all their training and development activities. The model presented in Chapter III was designed for such a purpose.

Secondly, the quality of instruction played an extremely important role as to why the program was so effective. The neutralizing of differences relative to experience and education were not only due to the high quality of instruction and organization, but also to the total commitment and devotion of the instructor to the participants of the Management Development Program.

Major Implications of the Study

1. The Management Development Program is an effective method of teaching basic credit concepts, as evidenced by the significant gains in posttest and case study scores over pretest scores.
2. Questionnaire data indicate that the trainees felt that these concepts would have relevance to their jobs.

3. Results based on posttest scores demonstrate that one should not be included or excluded from attending this training program on the basis of education and experience, selected psychological tests, or pretest scores.
4. The low contribution of the psychological tests toward predicting the posttest and the case study suggests that the expenditure in time and money to undertake the psychological testing is unwarranted.

Limitations

1. Due to organizational constraints, no cost-effective analysis of the training program could be performed. This is due to the type of confidential information which would have been necessary (i.e., salaries, etc.).
2. Apart from an attitude inventory which was taken three months after the training program, no objective validation was done to see whether or not training directly affected job performance.
3. The results relative to the role of selection cannot be generalized to other types of training programs (because it dealt only with bank management). However, these data may in fact be indicative of the sort of results others would receive with similar training. It is important to reiterate that good training should overcome initial individual's differences if criterion referencing is employed in an objective-based system.
4. The predictive ability of the psychological tests was used only to assess performance within this training program. Their value in

predicting job performance or their effectiveness in selecting and placing trainees was not tested here, and warrants further investigation.

Future Research

To truly evaluate the effect of management training on job performance, behaviour changes as a direct result of training must be measured. However, because of the high cost involved, this is seldom attempted or even considered.

Brown (1982) suggests that an alternative to measuring changes in behaviour would be to assess accomplishments before and after training via the use of a tight experimental design. This could facilitate a partial answering of the final two questions of the Boyle (1982) Model B:

VI. Does application of concepts impact the organization?

VII. Is the selection procedure a predictor of performance?

These questions are critical for optimum decision-making at the upper management level and, at the same time, are questions which are otherwise difficult to operationalize.

Because of the difficulties of evaluating on-the-job behaviour, pursuing the idea of accomplishments as an additional dependent variable appears to be a promising direction for future research in this area.

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APPENDIX A

ATTITUDE INVENTORY I

SUBJECT

DEMOGRAPHIC DATA

CODE: _____

AGE : _____

SEX : _____

EDUCATION: _____

_____

_____

EXPERIENCE: (List positions held at the Bank over the last five years. Include the number of years for each position. i.e. Admin. Support--3 years; BAO--4 years; AMA--1 year; District--2 years.)

1. _____
2. _____
3. _____
4. _____
5. _____

LAST POSITION HELD AT THE BANK: Check one of the following:

a. Consumer Loans _____

b. Commercial Loans _____

c. Administration: District Office _____
Branch Office _____

d. New Bank Employee _____

CHECK PRESENT DISTRICT:

Atlantic	_____	Manitoba	_____	Quebec	_____
British Columbia	_____	Alberta	_____	Head Office	_____
Saskatchewan	_____	Ontario	_____	International	_____

ATTITUDE INVENTORY I

CODE: _____

1. Is this your first seminar at the Bank? If not, please specify the ones which you have attended.

_____

_____

2. What do you hope to gain from this seminar?

_____

_____

_____

3. What are your concerns and expectations regarding this seminar?

_____

_____

_____

4. How do you feel this seminar will influence your career at the Bank?

_____

_____

_____

5. How do you feel you were selected to attend this seminar (i.e. education, experience, potential, etc.), and by whom (supervisor, personnel--no names please)?

_____

_____

_____

6. How do you perceive this experience from a positive and negative point of view?

POSITIVE: _____

_____

_____

NEGATIVE: _____

_____

_____

APPENDIX B

PRETEST

CODE: _____

MANAGEMENT DEVELOPMENT SEMINAR

Pre-test

Circle "T" if the statement is TRUE and "F" if the statement is FALSE.

1. In financial statement analysis, "current assets" are those which are in the form of cash or those expected to be converted into cash within 6 months. T F

2. Depreciation increases working capital. T F

3. The rates of depreciation are normally based on the life expectancy of specific assets and such rates are established by the Bank. T F

4. Financial statements normally include:

   a. balance sheet
   b. income statement
   c. statement of retained earnings
   d. statement of sources and application of funds T F

5. In business, there are different methods of valuing inventories. T F

6. Depletion contributes to cash flow. T F

7. Appropriation is a method of providing for possible losses. T F

8. Depreciation is a branch of accounting that deals with systematically distributing the cost of a fixed asset over the estimated useful life. T F

9. Depreciation and amortization are the same thing. T F

10. A "straddle" is a term used in budget financing. T F

11. "Blue Sky" is used by most weatherpersons. T F

12. A "tender" loan carries a higher interest rate than a term loan. T F

13. Treasury stock is stock that remains unissued. T F

14. Vertical Analysis is a technique for analysing the balance sheet and the income statement. T F

15. Any penalty for an income tax offense may be charged to the company's expenses. T F

16. Debt repayability is the length of time a company takes to pay off its debts. T F

17. Put and Call options relate to transactions with a stock broker. T F

18. You cannot have a "strip" and a "strap" at the same time. T F

19. A consolidated statement is made up from the consolidating statements. T F

20. A corporation generally has a board of directors elected by the shareholders. T F

21. In the case of limited liability, shareholders are not liable for the debts of the corporation. T F

22. It would be important to relate the funds employed to the total annual sales. T F

23. Capital cost allowance is a method of establishing the true cost of the fixed assets of a company. T F

24. The method of evaluating inventory will have an effect on the profit of a company. T F

25. In most companies, expenses can be classified under two headings. T F

26. The purchase of $1,000,000 worth of inventory on account will have a negative influence on the current ratio. T F

27. The collection of $1,000,000 in receivables will have a positive influence on the working capital position. T F

28. An interim statement and a pro forma statement are the same. T F

29. A bridging loan is related to the financing of bridge construction. T F

30. The book value is not necessarily the real value of a company's assets. T F

31.	Depreciation is deducted before tax.	T	F
32.	Land depreciates when it is fully used by a company.	T	F
33.	A loan should never be made to a company with a deficit working capital position.	T	F
34.	Gross margin and markup cost are not the same thing.	T	F

TURN TO THE NEXT PAGE

Match column "X" Balance Steet Items with column "Y". Items in column "X" may be used once, more than once, or not at all. Place your answer in the space provided below.

COLUMN "X"	COLUMN "Y"	
a. Current Assets	1. Inventory	_____
b. Non Current Assets	2. Receivables	_____
c. Current Liabilities	3. Trade Receivables from Associated Companies	_____
d. Net Worth		
e. Deferred Liabilities	4. Prepaid Expenses	_____
f. Tangible Assets	5. Deferred Charge	_____
g. Intangible Assets	6. Patents	_____
	7. Bank Loans	_____
	8. Contributed Surplus	_____
	9. Term Loan	_____
	10. Deferred Tax	_____
	11. Accrued Wages	_____
	12. Good Will	_____
	13. Bond Discount	_____
	14. Leasehold Expense	_____
	15. Subordinated Debt	_____
	16. Outstanding Cheques	_____
	17. Advances to Directors over 1 year	_____

Match column "X" with column "Y". Items in column "X" may be used once, more than once, or not at all. Place your answer in the space provided below.

COLUMN "X"	COLUMN "Y"	
a. Stock Issue	1. Age of Inventory	_____
b. Stability	2. Acid Test	_____
c. Foreign Exchange	3. Age of Payables	_____
d. Liquidity	4. Plant Efficiency	_____
e. Money Markets	5. Fund Employed per $ Sale	_____
f. Profitability	6. Current Ratio	_____
g. Growth	7. Gross Profit	_____
	8. Debt Pressure	_____
	9. Net Profit/T.N.W.	_____

Multiple Choice: Circle the letter of the option that best answers the question.

1. One of the new mathematical forecasting methods is:

   a. Z-score or Altman Formula

   b. H-score or Richman Formula

   c. T-score or Schmid Formula

   d. G-score or Marcone Formula

2. This new mathematical forecasting method forecasts:

   a. failure

   b. success

   c. success and failure

   d. none of the above

Match column "X" with column "Y". Items in column "X" may be used once, more than once, or not at all. Place your answer in the space provided below.

COLUMN "X"	COLUMN "Y"	
a. Trend	1. Assessing the ability to incur short and long term debt	_____
b. Internal	2. Relationship of capital to outside funds	_____
c. External	3. Cash flow analysis to establish loan repayment	_____
d. Debt Capacity	4. Comparison of corporation's progress from one period to another	_____
e. Vertical	5. Relating selected Balance Sheet items to each other	_____
f. Sensitivity	6. Analysis of pro forma balance sheets for the next four (4) years	_____
g. Projection	7. Based on past trends, new economic factors with reasonable assumptions to assess the financial position at some future date	_____
h. Historical		
i. Debt Repayability		

Define the following:

1. E.B.I.T.: _____

_____

2. Debt Repayability: _____

_____

_____

APPENDIX C

EMBEDDED TEST

CODE: _____

MANAGEMENT DEVELOPMENT SEMINAR

Embedded Test

Circle "T" if the statement is TRUE and "F" if the statement is FALSE.

1. In financial statement analysis, current assets are those which are in the form of cash or those expected to be converted into cash within 6 months. T F

2. Depreciation increases working capital. T F

3. The rates of depreciation are normally based on the life expectancy of specific assets and such rates are established by the bank. T F

4. Financial statements normally include:

   a. balance sheet
   b. income statement
   c. statement of retained earnings
   d. statement of sources and application of funds T F

5. In business, there are different methods of valuing inventories. T F

6. Depletion contributes to cash flow. T F

7. Depreciation is a branch of accounting that deals with systematically distributing the cost of a fixed asset over the estimated useful life. T F

8. Depreciation and amortization are the same thing. T F

9. Vertical Analysis is a technique for analysing the balance sheet and the income statement. T F

10. Any penalty for an income tax offense may be charged to the company's expenses. T F

11. In the case of limited liability, shareholders are not liable for the debts of the corporation. T F

12. It would be important to relate the funds employed to the total annual sales. T F

13. The method of evaluating inventory will have an effect on the profit of a company. T F

14.	The purchase of $1,000,000 worth of inventory will have a negative influence on the current ratio.	T	F
15.	The collection of $1,000,000 in receivables will have a positive influence on the working capital position.	T	F
16.	The book value is not necessarily the real value of a company's assets.	T	F
17.	Depreciation is deducted before tax.	T	F
18.	Land depreciates when it is fully used by a company.	T	F
19.	A loan should never be made to a company with a deficit working capital position.	T	F

Match column "X" Balance Sheet Items with column "Y". Items in colums "X" may be used once, more than once, or not at all. Place your answer in the space provided below.

COLUMN "X"	COLUMN "Y"	
a. Current Assets	1. Inventory	____
b. Non Current Assets	2. Receivables	____
c. Current Liabilities	3. Trade Receivables from Associated Companies	____
d. Net Worth		
e. Deferred Liabilities	4. Prepaid Expenses	____
	5. Deferred Charge	____
	6. Patents	____
	7. Bank Loans	____
	8. Contributed Surplus	____
	9. Term Loan	____
	10. Deferred Tax	____
	11. Accrued Wages	____
	12. Goodwill	____
	13. Bond Discount	____
	14. Leasehold Expense	____
	15. Subordinated Debt	____
	16. Outstanding Cheques	____
	17. Advances to Directors over 1 year	____

Match column "X" with column "Y". Items in column "X" may be used once, more than once, or not at all. Place your answer in the space provided below.

COLUMN "X"	COLUMN "Y"	
a. Stability	1. Age of Inventory	_____
B. Liquidity	2. Acid Test	_____
c. Profitability	3. Age of Payables	_____
d. Growth	4. Plant Efficiency	_____
	5. Fund Employed per $ Sale	_____
	6. Current Ratio	_____
	7. Gross Profit	_____
	8. Debt Pressure	_____
	9. Net Profit/T.N.W.	_____

Multiple Choice: Circle the letter of the option that best answers the question.

1. One of the new mathematical forecasting methods is:

   a. Z-score or Altman Formula

   b. H-score or Yep Formula

   c. T-score or Boyle Formula

   d. G-score or Mirabel Formula

2. This new mathematical forecasting method forecasts:

   a. failure

   b. success

   c. success and failure

   d. none of the above

Match column "X" with column "Y". Items in column "X" may be used once, more than once, or not at all. Place your answer in the space provided below.

COLUMN "X"	COLUMN "Y"	
a. Trend	1. Assessing the ability to incur short and long term debt	_____
b. Internal	2. Relationship of capital to outside funds	_____
c. External	3. Cash flow analysis to establish loan repayment	_____
d. Debt Capacity	4. Comparison of corporation's progress from one period to another	_____
e. Vertical	5. Relating selected Balance Sheet items to each other	_____
f. Projection	6. Analysis of pro forma balance sheets for the next four (4) years	_____
g. Historical		
h. Debt Repayability		

APPENDIX D

POSTTEST

CODE: _____

MANAGEMENT DEVELOPMENT SEMINAR

Post Test

1. In financial statement analysis, "current assets" are those which are in the form of cash or those expected to be converted into cash within 12 months. T F

2. Depreciation decreases working capital. T F

3. The rates of depreciation are normally based on the life expectancy of specific assets and such rates are established by the income tax department. T F

4. Financial statements normally include:

   a. balance sheet
   b. income statement
   c. statement of retained earnings
   d. statement of sources and application of funds T F

5. In business, there are different methods of valuing inventories. T F

6. Depletion does not contribute to cash flow. T F

7. Appropriation is a method of providing for possible losses. T F

8. Depreciation is a branch of accounting that deals with systematically distributing the cost of a fixed asset over the estimated useful life. T F

9. There is a similarity between depreciation and amortization but they are not the same. T F

10. Blue Sky is an accounting term. T F

11. A tender loan is a loan granted in sympathy. T F

12. A straddle is a term used in budget financing. T F

13. Treasury stock is stock that cannot be sold. T F

14. Vertical Analysis is a technique for analysing the balance sheet and the income statement. T F

15. Any penalty for income tax offense may be charged to the company's expenses. T F

16. Debt repayability is whether or not a company can pay its debts within six months. T F

17. Put and Call options are related to Canada Savings Bonds. T F

18. You must have a strip and a strap at the same time. T F

19. A consolidated statement is made up from the consolidating statements. T F

20. A corporation generally has a board of directors elected by the shareholders. T F

21. The method of evaluating inventory will have no effect on the profit of a company. T F

22. In case of limited liability, shareholders are liable for all the debts of the corporation. T F

23. It would be important to relate the funds employed to the total annual sales. T F

24. In most companies, for calculating breakeven analysis, expenses can be classified under two headings. T F

25. The purchase of $1,000,000 worth of inventory on account will have a positive influence on the current ratio. T F

26. The collection of $1,000,000 in receivables will have a negative influence on the working capital position. T F

27. An interim statement and a pro forma statement are the same thing. T F

28. A bridging loan is a long term loan extending over many years. T F

29. The book value is not necessarily the real value of a company's assets. T F

30. Depreciation is deducted after tax. T F

31. Land depreciates when it is fully used by a company. T F

32. A loan should never be made to a company with a deficit working capital position. T F

33. Gross profit is before expenses have been deducted. T F

PART TWO

1. If depreciation is not taken, what should be done?

   Answer: _____

2. What is one source of debt repayment?

   Answer: _____

3. Define:

   Trend Analysis : _____

   Internal Analysis : _____

   External Analysis : _____

   Historical Analysis: _____

   Projection : _____

   Sensitivity : _____

4. True current ratio analysis is a test for _____.

5. Patents are _____ assets.

6. A client needs a $50,000 loan to temporarily increase his inventory. He needs a _____ loan.

7. If you have a $2 par value stock and you sell it to the public for $46, what would your contributed surplus then be?

   Answer: _____

8. A client needs a $100,000 loan to purchase equipment. In the normal course of events, what kind of loan would he require?

   Answer: _____

9. $\frac{\text{Fixed Costs \$}}{\text{Contribution}} =$ _____

10. Inventory is classified as a:

    a. current asset
    b. fixed asset
    c. non current asset
    d. current liability

11. Receivables are _____.

12. Prepaid expenses are:

    a. assets
    b. liabilities
    c. deferred liabilities
    d. net worth

13. Deferred charge can be found in:

    a. current asset section
    b. current liability section
    c. non current asset section
    d. deferred liability section

14. Accrued wages should be shown under what section of a balance sheet?

    Answer: _____

15. Goodwill is an _____ asset.

16. What is bond discount?

    Answer: _____

    _____

17. Leasehold improvement is an expenditure relating to property that is rented. T F

18. Subordinated debt is a deferred liability. T F

APPENDIX E

ATTITUDE INVENTORY II

CODE: _____

ATTITUDE INVENTORY II

1. On a scale of 1 to 10 (totally ineffective to extremely effective), please rate this seminar.

   /////////

2. Using the same principle, rate the following:

   a. Instructor's knowledge of subject matter

      totally unknowledgeable /////////// extremely knowledgeable

   b. Organization and coverage of subject matter

      totally unorganized /////////// extremely organized

   c. Case study appraoch

      totally ineffective /////////// extremely effective

   d. Team work

      totally useless /////////// extremely useful

   e. Handouts

      totally useless /////////// extremely useful

3. Did this seminar meet your expectations?

   _____ To some extent

   _____ To a great extent

   _____ Not at all

   _____ No comment

   How? _____

   _____

   _____

   _____

4. Do you feel you benefited professionally and personally from this course? In what way (s)?

Professionally: _____

_____

Personally : _____

_____

5. Do you expect that your career will be influenced by your participation in this seminar? In what ways?

_____ Yes

_____ No

How? _____

_____

_____

6. Did the course assist you in developing a better understanding of:

	NOT AT ALL	TO SOME EXTENT	TO A GREAT EXTENT
a. Business strategies			
b. Financial analysis			
c. Credit judgements			
d. Understanding collateral security			
e. Problem solving			
f. Decision making			
g. Managing one's own potential			
h. General business			

7. What aspects of this course did you find MOST helpful?

_____

_____

_____

8. What aspects of this seminar did you find LEAST helpful?

_____

_____

_____

9. Have you any suggestions for improving this seminar?

_____

_____

_____

10. Do you feel this course should be continued?

Yes _____ Why? _____

_____

No _____ Why not? _____

_____

11. Comment on the LENGTH of this course.

_____ Too long

_____ Too short Comments: _____

_____ Adequate

12. Comment on the LOCATION of this course.

_____ Good

_____ Bad

_____ Okay

_____ Indifferent

Comments: _____

13. How do you now perceive this experience from a POSITIVE and a NEGATIVE point of view?

POSITIVE: _____

_____

_____

NEGATIVE: _____

_____

_____

14. In your opinion, does it make any difference who should attend this seminar (i.e. education vs experience or background)? EXPLAIN YOUR RATIONALE.

_____

_____

_____

15. How do you generally feel about the whole group?

_____

_____

_____

16. Comment on the following:

Workload: _____

_____

Testing : _____

_____

17. Do you feel testing should be allowed when it is conducted solely to measure the degree of learning and the progress of a group?

_____ Yes

_____ No

_____ Indifferent

18. Do you feel this type of testing was:

_____ Useful

_____ Useless

_____ Indifferent

19. Has this TESTING business UPSET you in any way?

_____ Yes Why? _____

_____

_____ No

20. How would you now rate your self-confidence regarding commercial credit as a DIRECT consequence of this seminar?

Below Average |/|/|/|/|/|/|/|/|/| Above Average

21. Do you feel that others might befefit from exposure to a program such as this?

_____ Yes

_____ No

22. How would you rate the CA presentation?

Totally Useless ///////// Extremely Useful

23. Do you feel that an on-going career development program in commercial credit at different levels should be offered to you by the BANK?

_____ Yes

_____ No

24. Could this type of course be done at the district level?

_____ Yes

_____ No

EXPLAIN YOUR RATIONALE: _____

25. If you had any say at all, what changes would you make regarding this seminar?

26. General Comments:

APPENDIX F

ATTITUDE INVENTORY III

ATTITUDE INVENTORY III

CODE: _____

DISTRICT: _____

PART 1: GENERAL INFORMATION

1. Are you still on the Management Development Program?

   Yes _____

   No _____

2. If NO, what is your present position?

   _____

3. If YES, when do you expect to complete the Management Development Program and in what capacity?

   Approximate Date: _____

   Expected Position: _____

   (Please try to be specific--what are you hoping/aiming for OR what does personnel or your supervisor have in store for you?)

   _____

COMMENTS: _____

_____

PART II: UPDATE

This section deals with YOU and the present ON-THE-JOB Management Development Program.

On a scale of 1 to 10 please rate the following:

1. To what extent is the knowledge acquired at the Management Development Seminar RELEVANT to your present job/duties?

totally irrevelant ///////// extremely relevant

2. How would you rate your degree of INVOLVEMENT in commercial credit at your present job?

totally uninvolved ///////// extremely involved

3. Rate the USEFULNESS of the concepts learned (knowledge acquired) at the Management Development Seminar in relation to your present job/ duties.

totally useless ///////// extremely useful

4. To what extent have you been able to APPLY new concepts (knowledge acquired) i.e. Altman Formula, ratios, ect. at your present job?

not at all ///////// to a very great extent

5. Generally speaking, how would you NOW rate your SELF-CONFIDENCE regarding Commercial Credit as a direct result of the Management Development Seminar?

no confidence at all ///////// extremely confident

6. How would you rate your present ON-THE-JOB Training Program in Commercial Credit?

totally ineffective ///////// extremely effective

7. COMMENTS: _____

_____

PART III: PREDICTIONS

This section deals with YOUR hopes and expectations once you have completed the Management Development Program.

To the best of your knowledge and experience at the bank, please rate the following:

1. Rate your chances of obtaining a position in commercial lending once you have completed the Management Development Program.

below average ///////// above average

2. Rate your chances of obtaining a "responsible" position in commercial lending once you have completed the Management Development Program.

below average ///////// above average

3. DEFINE what "responsible" means to YOU.

_____

_____

4. To what extent will the knowledge acquired at the Management Development Seminar be RELEVANT to your EXPECTED position/job?

totally irrelevant ///////// extremely relevant

5. Do you expect the concepts learned at the seminar will be USEFUL to you in your FUTURE position/job?

totally useless ///////// extremely useful

6. To what extent will you be able to APPLY new concepts (knowledge acquired) in your EXPECTED job?

not at all ///////////, to a very great extent

7. Estimate your degree of SELF-CONFIDENCE regarding COMMERCIAL CREDIT upon completion of the Management Development Program.

below average ///////////, above average

8. COMMENTS: _____

_____

NEXT PAGE

PART IV: EVALUATION

The aim of this section is to receive objective feedback on how you NOW feel about the measurement procedures used in the evaluation of the Management Development Seminar/Program.

1. What are your feelings regarding this type of evaluation procedure?

   POSITIVE : _____

   NEGATIVE : _____

   INDIFFERENT: _____

2. EXPLAIN: _____

   _____

3. COMMENTS: _____

   _____

MANY THANKS

APPENDIX G

CURRICULUM FOR MANAGEMENT DEVELOPMENT PROGRAM

CURRICULUM FOR MANAGEMENT DEVELOPMENT PROGRAM

SUBJECT

The Corporate Structure
The Capital Structure
The Financial Structure
The Corporate Size-Up
Derivation of Business Accounts
Read Statement Information
Relate
Interpret
Interview Preparation
Banker/Client Interview
Collateral Security - General

- . Negotiable
- . Non-negotiable

Collateral Security - Scope
Collateral Security - Documentation
Collateral Security - Value
Collateral Security - Recovery
Credit Appraisal
Credit Submission
The Whole Company

- . Liquidity
- . Stability
- . Profitability
- . Growth

The Big 3 C's

- . Character
- . Capacity
- . Collateral

Empirical Studies
(List of Studies - see Note 1)

E.B.I.T.
Coverage Interest
Coverage Payments
Selected Ratio Analysis

- . History
- . Techniques
- . Computation & Meaning
- . Historical
- . Trend
- . Internal
- . External
- . Projection
- . Vertical
- . Sensitivity

Measuring & Controlling Statement Inf
The Pipeline

- . The Length
- . The Width

Working Capital

- . Importance to Lender
- . Measuring
- . What it is -- What it isn't
- . Permanent
- . Temporary

Depreciation
Amortization
Depletion
Capital Cost Allowance
Deferred Tax
Perils of the Wicked World

- . Economic Excuse
- . Big is Beautiful
- . Figures are not Important
- . Overvalued Assets
- . Overstated Income
- . Appetite for Borrowing
- . Magic Formula
- . Gunslinger Mentality
- . Come on in -- The Water's Fine (Misery Loves Company)

To Avoid the Perils

. Question - and question, and question
. Analyze - to understand
. Relate - to other things internally
. Compare - to other things externally
. Verify - to make sure its really there
. Insist - on the information you need
. Probe - until you really understand
. Persist - never give up

Cash Flow

. Internal
. External
. Short Term
. Intermediate Term
. Long Term
. Debt Capacity
. Debt Repayability

Term Lending
Call on a Client
Call on a New Client
New Business
Business Reports
Behaviour of Expenses
Practical Application B/E Analysis
Income Tax
Acquisition of a Business
Assets/Shares Purchases
Stock Market - To a Banker

. The Exchanges
. Securities Commission
. Listed/Unlisted
. Financing
. Common/Perferred, Special, A/B Bonds, Debentures, Options, Rights, Warrants
. New Issues
. Collateral/Financing/Risks
. Gold & Dross

Associated Companies
Consolidated Statements
Consolidating Statements
Warning Signals
Auditors' Reports - Nature & Significance
Profits - The Dues
(That must be paid to stay in business)
The Audit Gap
Decision Making
When to Say Yes
How to Say No
Size-Up of a Company vs Eyeballing
The Corporate/International Banker
Total Management

- Identifying Problems
- Solving Problems
- Making Decisions
- Working Through Others
- Management of Time
- Personnel
- Motivation
- Delegation & Training
- Self-Confidence
- Leadership Styles
- Understanding People
- Communications
- Development Process
- Getting Things Done

NOTE - 1 (Empirical Studies)

Synopsis of Seminar Writings relative to research and financial breakdown.

"Financing Small Corporation in Manufacturing Industries"
Charles L. Merwin.

. 939 firms studied
. analyzed an unspecified number of ratios
. found the three most sensitive in predicting "discontinuance" of firms as early as 4 or 5 years

- current ratio
- net working capital to total assets
- net worth to total debt

They all exhibited declining trends before discontinuance and were at all times below estimated normal ratios.

"Changes in Financial Structure of Unsuccessful Firms"
Arthur Winakor & Raymond F. Smith

. 183 firms studied
. 21 ratios analyzed
. concluded the ratio of working capital to total assets was the most accurate and reliable indication of failure

"Symptoms of Industrial Failures"
Paul J. Fitzpatrick

"A Comparison of the Ratios of Successful Industrial Enterprises with Those of Failed Companies"
Paul J. Fitzpatrick

. 20 firms that failed
. 13 ratios - 5 year trends
. 19 firms that all ratios predicted failure to some extent
. found that all ratios predicted failure to some extent

The best predictors were found to be:

- return on net worth
- net worth in Debt Ratio

They all exhibit trends before discontinuance and were at all times below estimated normal ratios.

"Financial Ratios as Predictors of Failure"
William H. Beaver

The author found that financial ratios proved useful in the prediction of bankruptcy and bond default at least 5 years prior to such failures.

"Corporate Bond Quality & Investor's Experience"
W. Braddock Hickman

- focused on companies in debt default
- times interest - earned ratio
- net profit - to sales ratios
- were useful predictors

"The Determination of Long-Term Credit Standing with Financial Ratios"
James O. Harigan

The investigation of the ability of ratios to predict bond rating changes found the rating changes could be correctly predicted.