

A PHENOMENOLOGICAL STUDY OF THE AWARENESS,
COMPREHENSION AND APPLICATION OF INSTRUCTION
DESIGN IN MANAGEMENT DEVELOPMENT AMONG LARGE
COMPANIES IN NEWFOUNDLAND AND LABRADOR

CENTRE FOR NEWFOUNDLAND STUDIES

**TOTAL OF 10 PAGES ONLY
MAY BE XEROXED**

(Without Author's Permission)

WILLIAM J. MORRISSEY



**A Phenomenological Study of the Awareness,
Comprehension and Application of Instruction Design in
Management Development among Large Companies in
Newfoundland and Labrador**

by

William J. Morrissey, BA Ed.

7913577

A thesis submitted to the School of Graduate Studies
in partial fulfilment of the degree of Master of Education

**Faculty of Education
Memorial University of Newfoundland**

December 1996

St. John's

Newfoundland

ABSTRACT

The purpose of this phenomenological study was to determine the awareness understanding and application of instructional design in corporate management development among the largest employers in Newfoundland and Labrador. The study attempted to determine the processes used by corporate trainers, given the absence of formal instructional design methodology.

The study was a continuation of studies conducted by Tobin (1989), Gallant (1989), Thomey (1991), Graham (1991), and more recently Gorman (1993) and Healy (1994) in the province of Newfoundland and Labrador over the previous five years. These studies looked at instructional design usage in a variety of settings including primary, elementary, secondary and high school teachers, teacher librarians, and nurse educators. Results of these studies clearly demonstrated that formal instructional design methodology was not being applied. In its absence, the subjects relied upon related experiences to put together their training programs.

The data for this study was collected in the fall of 1995 through a combination of questionnaires, and semi-structured interviews with ten corporate trainers. The subjects were selected by stratified random sample from among the largest 25 employers in the province. All but one interview was audiotaped with the permission of the respondents. The results were then transcribed and analyzed by common themes.

The results of the study indicated that corporate trainers interviewed did not have a background in instructional design, and therefore were low in knowledge about its application. Most trainers used some form of instructional design, though the process was rudimentary and incomplete.

ACKNOWLEDGEMENTS

The author wishes to thank a number of friends, colleagues and mentors for their kind assistance and encouragement during the research and writing of this thesis. Very special thanks must go out to my thesis advisor and someone I now consider a friend, Dr. Mary Kennedy. You gave me guidance, encouragement, and the occasional push to successfully complete this thesis. Thanks also goes out to the faculty and fellow Club MEd students from the Learning Resources Program of the Faculty of Education at Memorial. I also wish to thank Dr. Rick Roskin of Memorial's Faculty of Business Administration. Your guidance, encouragement and thought provoking questions were invaluable.

To all the subjects I interviewed during the pilot testing and data collection, I offer thanks. Without your time and cooperation this thesis could not have been completed. To Lynn, my wife, and my boys, Liam and Shaun, thanks for putting up with my late nights

Finally, I would like to dedicate this thesis to the memory of my father William F. Morrissey and my father-in-law John Barron. I know they would have liked to have seen me through this stage of my education.

TABLE OF CONTENTS

ABSTRACT.....	i
ACKNOWLEDGEMENTS.....	iii
LIST OF FIGURES AND TABLES.....	viii

CHAPTER 1. NATURE OF THE STUDY

Introduction.....	1
Background to the Problem.....	1
Significance of the Study.....	4
Definition of Terms.....	5
Limitations of the Study.....	7
Organization of the Study.....	8

CHAPTER 2. REVIEW OF RELATED LITERATURE

Instructional Design, Instruction and Training	
Historical Perspective of ID.....	10
Instruction and Training.....	23
Current Practices and the Future of ID.....	26

Management Development	
Historical Perspective.....	31
Training Styles.....	33
Theories in Management Development.....	35
Implications for the Study.....	40

CHAPTER 3. METHODOLOGY

Introduction.....	43
The Instruments.....	43
The Sample Group.....	45
Administration of the Study.....	46
Data Analysis.....	47

CHAPTER 4. REPORT AND ANALYSIS OF RESULTS

Introduction.....	49
Proposed Model.....	49
Organization of the Findings.....	50
Demographics.....	51

Application of Instructional Design	
Critical Incident Scenario.....	53
Espoused Theory.....	57
Who Gets Training?.....	61
Instructional Planning.....	63
Formal ID Components.....	68
Needs Assessment.....	71
Task Analysis.....	74
Objectives.....	76
Learner Analysis.....	80
Evaluation and Return on Investment.....	82
Contracting Management Development.....	87
Training Styles.....	89
Summary of the Data.....	89

CHAPTER 5. CONCLUSIONS AND RECOMMENDATIONS

Summary of the Study.....	93
Conclusions.....	94
Recommendations.....	96

REFERENCES.....	98
------------------------	-----------

APPENDICES

Appendix A	TSI Style Contrasts.....	102
Appendix B	Critical Incident Scenario and Interview Guide.....	103
Appendix C	Training Style Inventory.....	104
Appendix D	List of 25 Largest Employers in Newfoundland Labrador.....	105
Appendix E	Participant and Organizational Consent Forms.....	106

LIST OF FIGURES AND TABLES

FIGURES

Figure 1	The training wheel.....	20
Figure 2	The four quadrants of comprehension and application of instructional design.....	50

TABLES

Table 1	Demographics.....	53
Table 2	Trainers' definitions of management development.....	59
Table 3	Trainers' definitions of management training.....	60
Table 4	Trainers' perceptions of the differences between management development and management training.....	61
Table 5	Trainers' definitions of and starting points for instructional planning.....	65
Table 6	Trainers' perceptions of the benefits to instructional planning.....	66
Table 7	Trainers' perceptions of drawbacks to instructional planning.....	67
Table 8	Trainers' definitions of curriculum development.....	70
Table 9	Trainers' definitions of instructional design	71
Table 10	Trainers' definitions of needs assessment.....	73
Table 11	Trainers' perceptions of the importance of needs assessment.....	74

Table 12	Trainers' definitions of task analysis.....	75
Table 13	Trainers' responses to the espoused use of task analysis in management development.....	76
Table 14	Trainers' responses to the type of objectives used for management development.....	78
Table 15	Trainers' perceptions of the use of objectives.....	80
Table 16	Trainers' espoused use of learner analysis.....	82
Table 17	Trainers' definitions of evaluation and its importance.....	83
Table 18	How trainers evaluate.....	85
Table 19	Trainers' measurements of success or return on investment.....	87
Table 20	Trainers' reasons for contracting out management development.....	88

CHAPTER ONE

NATURE OF THE STUDY

Introduction

The purposes of this research project were three-fold. First, it was being completed as partial fulfilment of the Masters of Education degree from Memorial University of Newfoundland. Second, this research was to be combined with previous research to give additional perspective to the understanding and application of instructional design in various Newfoundland settings. Third, this researcher was employed in the management development field and was interested in studying the use of formal instructional design in corporate training, and when it was not used, what was used in its place.

Background to the Problem

The responsibility for training in many Newfoundland and Labrador firms falls under the human resource or personnel departments. Many of these departments do not have formal training divisions; rather, training is a role added to the many others of the personnel/human resources manager. This is being evidenced

even more in recent times of corporate downsizing. A 1994 survey by Training and Development Magazine found that "more than a quarter of all respondents said they run a one-person training department" (Britt, 1994, p. 13). These managers typically assume the position, having completed degrees in business administration or commerce at either the graduate or undergraduate level. Undergraduate and graduate programs in business in Newfoundland offer no courses to prepare graduates for the responsibility of training, although the topic may be addressed in general human resource courses. Even less attention is paid to the preparation of graduates for the role of trainer or for senior positions responsible for training.

Many firms deliver no in-house management development. Instead, they contract external trainers to develop and deliver programs for their managers. Knowledge of instructional design is equally necessary in this role. A great deal of responsibility is given to the external management developer or consultant to give the company what is needed. Without knowledge of instructional planning (needs assessment, task analysis, learning objectives, learner analysis, and evaluation), it becomes difficult for the human resource department to ensure success of the management development activity.

A discrepancy exists between what some trainers say they do and what is actually done. Argyris (1985) refers to "espoused theory" and "theory-in-use" (p. 79) to distinguish between the two. There is no evidence that either of these theories have been studied in corporate training in Newfoundland.

In this phenomenological study, individuals responsible for the management development function in ten large Newfoundland and Labrador companies were interviewed. The selection was made through stratified random sample from the largest 25 companies operating in Newfoundland and Labrador, based on number of employees. The interviews were broken into three phases. The first phase determined the educational and occupational background of the subjects, as well as their basic philosophy of management development. They were also asked to briefly describe how they would go about the instructional development process in a critical incident scenario. The second interview focused on their specific knowledge and application of formal instructional design techniques, or, in its absence, an assessment of what was used in the development of, or contracting of, management training and development programs. The third phase consisted of a short questionnaire to determine the individual training styles.

A pilot study was conducted with two individuals with masters degrees in instructional design and experience in management development in Newfoundland corporations. This pilot was used to confirm that the semi-structured interview guide accurately assessed the subjects as instructional developers. Fine tuning of questions was carried out at this stage.

Significance of the Study

There has been research completed in the Newfoundland context which looks at a variety of groups and their use of instructional design. These include Tobin (1989), Gallant (1989), Thomey (1991), Graham (1991), and more recently Gorman (1993) and Healy (1994). These studies looked at instructional design usage in a variety of settings including primary, elementary, secondary and high school teachers, teacher librarians, and nurse educators. This compilation of information offers additional insight into the degree of usage of instructional design in Newfoundland and Labrador, but clearly does not endeavour to look at its application in the corporate sector.

This thesis research studied the awareness, comprehension and application of

instructional design in management development. In addition, when formal instructional design methodology was not being applied, an enquiry into what was being used in its place was made. In this context, the study investigated the differences between espoused theory and theories in use.

Definition of Terms

For the purpose of this study the following definitions were utilized.

Management. The term management refers to the act of managing, directing, leading or supervising employees at a level below that of the manager.

Management includes managerial and supervisory levels in organizations.

Development. Development refers to new or changed abilities and attitudes typically necessary for the changing of behaviours. In the corporate setting, the terms training, human resource development, and organizational (management) development are used interchangeably.

Management Development. Management development is a process of attempting

to improve managerial effectiveness through planned and deliberate learning processes.

Instructional Design (ID). (Used interchangeably with instructional development and instructional technology.) It refers to the systematic approach to the design, production, evaluation, and utilization of complete systems of instruction, including all appropriate components and the management systems for using them (Silber, 1977, p. 172).

Awareness of ID. Awareness of instructional design is considered to be the realization that the terms and the process of instructional design exist. It indicates that the subject is aware of the field and activities, though may or may not have much understanding of the field.

Comprehension of ID. Comprehension of instructional design refers to the understanding of the terms and the process of instructional design. It indicates an understanding of its importance as well as a grasp of the theories underlying the field.

Application of ID. Application of instructional design refers to the utilization of instructional design in the operation of a training department. Application is discussed, not as a binary situation of yes or no, but as a continuum of behaviour that refers to the degree of utilization.

Limitations of the Study

It is recognized that this study has been conducted with the following limitations.

1. The purpose of the research was to determine the awareness, comprehension, and application of instructional design in a corporate setting and did not attempt to judge the effectiveness of any participant in performing the duties of his/her position.
2. The research focused exclusively on management training, and did not attempt to examine training across other or all segments of the corporate sector.

3. This phenomenological research used a small group of subjects in intensive interview situations. The findings are therefore limited to that group. It is not intended for the results to be generalized to the population of training managers in the province, but these will form the basis for future study with statistically valid sample sizes for combined qualitative and quantitative analysis.

Organization of the Study

This study has been organized from the general to the specific. Definitions of the terms appear in Chapter One along with information about the background to the problem.

Chapter Two is a review of the related literature including the historical developments and present or recommended practice of instructional design as it relates to corporate management development. The information contained in this chapter is more specific as it analyses the writing of renowned authors on related topics.

Chapter Three explains, in detail, the methodology used for conducting this phenomenological research, the instruments used, and the administration of the study.

Chapter Four reports on and qualitatively analyses the results of the research for each of the subjects interviewed. A summary of the results linking instructional design to management development then follows.

Chapter Five summarizes the study, its conclusions and recommendations for further investigation.

References and Appendices follow to add additional detail to the research and supply documentation relevant to the study.

CHAPTER TWO
REVIEW OF RELATED LITERATURE
Instructional Design, Instruction and Training

Historical Perspective of ID

Historically, instructional design emerged as a subset of the field of educational technology. In the 1950s what is now known as instructional design was commonly referred to as instructional technology. This referred to one of two things, either the audiovisual equipment used in instruction, or as Robert Heinich (1985) proposes, the "system that stresses the comprehensive analysis of problems" (p. 11).

Instructional design was also referred to by the Canadian Department of Manpower and Immigration (1973) as instructional technology which referred to "the comprehensive organization of principles, resources, personnel...to produce gains in learning", as well as training systems which were "ordered, sequential, coordinated methods to provide education or instruction" (p.72).

Corporate management development relies on theories of instruction, training

and education, all of which have been developed from theories of learning.

Hedegard (1967) found that,

historically, theories of instruction have been based on a combination of observation and conjecture about epistemological, metaphysical and other philosophical problems. The good intentions of these theorists were often coupled with strong doctrinal religious viewpoints interfering with thorough explanations of the problems addressed by the theorists. These factors limit the applicability of early theories to contemporary instructional settings. In addition, methodological refinements in techniques of observation and logical analysis have inevitably led to the rejection of certain early theoretical positions (p. 3).

In any event, the review of theories is necessary to see from where the present system of training and instruction has evolved. The Socratic method of structured questions and answers "included short organized units of instruction directed towards specific objectives and tailored to an individual student's interests and abilities" (Knirk and Gustafson, 1986, p. 3). This was one of the early theoretical applications in education. It was concerned with focusing on the individual. Through time and application, however, it was found to be limited. Too much concentration on individual needs required much more from the trainer or teacher. It was realized that although not all learners are alike, they do have many of the same abilities, needs, aspirations and experiences.

The use of the guild system and apprenticeship training allowed for small group

instruction, but economic and practical applications made it virtually impossible to continue with small groups. Teaching of large groups, primarily through lecture, was combined with Aristotle's idea of "note taking as an essential part of the learning process" (Knirk and Gustafson, 1986, p. 3). This was made even more practical and effective through the advancements in technology, where textbooks and mass media made presentation to very large groups commonplace. "Advancements in instructional technology are now permitting a return to individualized instruction" (Knirk and Gustafson, 1986, p. 3).

In 1960s, Jerome Bruner addressed the question of why theories of instruction are necessary in an attempt to justify the research. He felt that "theories of learning and of development are descriptive rather than prescriptive. They tell us what happened after the fact ... [A] theory of instruction ... is concerned with how what one wishes to teach can best be learned with improving rather than describing learning" (Bruner, 1966, p. 40). He also said that "a theory of instruction [is] a guide to pedagogy - a prescriptive theory on how to proceed in order to achieve various results, a theory that is neutral with respect to ends but exhaustive with respect to means" (Bruner, 1966, p. 31). In other words, the purpose of an instructional theory is to show how to utilize. It must be the

framework for the practical. Walton agreed, "since learning is an element of instruction ... theories of instruction tend to be prescriptive in that they advocate the procedures based on what is considered the most valid psychological knowledge" (Walton, 1971, p. 91). This has been a common feeling of writers in the development of their own theories and the writing about other theories.

Bruner felt that in order for an identified idea to become a theory of instruction it "should have the objective of leading the [learner] to discover for himself" (Bruner, 1962, p. 198). Later, he identified four essential features:

1. It should specify the experiences which most effectively implant in the individual the predisposition toward learning;
2. It must specify the ways in which a body of knowledge should be structured so that it can be most readily grasped;
3. It must specify the most effective sequence in which to present the materials; and
4. It must specify the nature and pacing of rewards and punishments in the process of learning (Bruner, 1966, p. 40-41).

Theories have evolved over the years from behaviourist theories to cognitive theories with the hope that they will "result in better understanding of learning and in new applications or principles" (Knirk and Gustafson, 1986, p. 102). The following are some of the more common theories which have an impact on training and development. Some have been called theories of instruction, but

most are either considered to be, or are derived from, learning theories.

John Dewey created a general theory of instruction in which he discussed direct or coincidental learning and intentional learning. Direct learning equates with a specially selected environment designed to promote growth in the desired direction. This is considered to be a general theory of instruction by Dewey, but by most definitions would not be acceptable as a theory as it is neither prescriptive nor practical and is not designed to improve instruction. It is, instead, reactive and descriptive. It responds to what has occurred without leading to the improvement of learning.

B. F. Skinner, who did not consider himself a theorist, described three theories of learning as a part of his reinforcement studies. They are *Learning By Doing*, *Learning from Experience*, and *Learning By Trial and Error*. He said that

"learning by doing emphasizes the response, however, execution of the behaviour may be essential but does not guarantee that learning will take place ... [L]earning from experience emphasizes the occasion upon which the response occurs but from experience alone, the student probably learns nothing ... [and] learning by trial and error [emphasizes] the consequences [but] correct behaviour is not simply what remains when erroneous behaviour has been chipped away" (Skinner, 1968, p. 5-8).

Again, these would not constitute theories as they do not prescribe how to improve learning. Instead, they may more appropriately be called applications.

The Hawthorne Effect (or "Somebody Upstairs Cares" Syndrome) has been studied and discussed for the rewards it reaps when somebody pays attention to the learner. "The mere act of showing people that you are concerned about them usually spurs them to better job performance" (Gerber, 1986, p. 113). The Hawthorne Studies took place in the late 1920s and early 1930s at Harvard Business School, based on preliminary studies of the effect of light on productivity. Although the original study showed no significant effect of light on productivity, and confused relationships between productivity and several other variables, social value was the link to productivity. "The portion of the Hawthorne Studies that dwelt on the positive effect of benign supervision and concern for workers that made them feel like part of a team became known as the Hawthorne Effect" (Gerber, 1986, p. 114).

Instructional Systems Design has also been studied for many decades. It was started by the US Military and has been adapted by theorists on numerous occasions. According to Carnevale, Gainer and Villet (1990), variations have

evolved over the years with many names, but they all include the following five stages:

1. Analysis of Training Needs
2. Design of Training Curriculum
3. Development of Training Curriculum
4. Implementation (delivery)
5. Evaluation (p.30)

A review of the following theories allows the reader to see the accuracy of the Carnevale et al classification.

Gagné and Briggs developed a set of principles for instructional design which expands upon Skinner's traditional reinforcement. The Gagné-Briggs theory "suggests that instruction can be defined as a set of events external to the learner that support the internal process of learning" (Knirk and Gustafson, 1986, p.

103). These external events are:

- gain learner attention
- inform the learner of the objectives
- stimulate recall of the prerequisites
- present stimulus materials
- provide learning guidance
- elicit the desired performance
- provide feedback
- assess performance
- enhance retention and transfer.

While this does not follow the exact structure Carnevale et al described,

evidence of the design, development, delivery and evaluation are obvious.

Merrill-Reigeleuth Elaboration Theory of Instruction in Knirk and Gustafson (1986) deals with "strategies for organizing instruction, such as interrelating topics within a course and sequencing instruction" (p. 103). Their theory "focuses on concepts, principles, procedures and recall of factual information ... [and] looks at instruction as a process that gradually presents details or refinements to previous instruction" (Knirk and Gustafson, 1986, p. 103). They use the following as the steps to instruction:

1. Select all operations to be taught (task analysis);
2. Decide which operations to teach first;
3. Sequence the remaining operations;
4. Identify supporting content;
5. Allocate all content to lessons and sequence the lessons;
6. Sequence the instruction within the lessons;
7. Design instruction for each lesson.

This elaboration theory, although containing additional steps, is clearly an expansion of several of the stages discussed by Carnevale et al. The major difference is that Merrill-Reigeleuth stop at the design of instruction without going on to delivery and evaluation.

According to Knirk and Gustafson (1986) "Case (1978) suggests that the

sequence of behaviour during each major stage of intellectual development depends on the appearance of increasingly complex strategies" (p. 104). Case's theory involved the following sequence:

1. Identify the goal of the task;
2. Map operations to assist the learner to reach the goal;
3. Compare the learner's performance with that of skilled individuals;
4. Assess the learner's level of functioning;
5. Design exercises to demonstrate to the learner the inadequacies of the current strategy;
6. Explain why the current strategy works better;
7. Present additional examples using new strategies.

Once again, as with Merrill-Reigeleuth, the process is terminated with implementation.

Malcolm Knowles devised his version of a unifying theory of adult learning called the Theory of Andragogy. The theory was accepted by many because it was seen as a link between adult educators and instructional designers.

Andragogy was based in the assumption that adult learners are different from children and that these differences have implications on teaching methodology.

Feuer and Gerber (1988) noted that:

Typically, by the time people have finished school, gotten a job and a family, they come to see themselves as fully responsible for their own lives. But the minute they walk into a situation labelled training or education, they hark back to their previous experience in school. They put on their dunce caps, sit back, fold their arms

in front of them and say, 'OK, Teach me!' (p. 35).

In the same article, Feuer and Gerber summarized the seven components of the

Andragogical Learning Theory. They are:

1. Set the Climate - this was seen by Knowles as one of the most important elements in the process. Trainers need to create physical and psychological environments that are conducive to learning.
2. Involve the learners in mutual planning - this, according to Knowles, is necessary if the adult learner is to feel committed to the training decisions.
3. Involve the participants in diagnosis of their learning needs - although this is recognized as being difficult, it is required if the latter is to see the gap that exists between the skills s/he possesses and those s/he requires. This will then assist in meeting the needs of the learner and of the organization. This corresponds to Carnevale et al's needs assessment.
4. Involve the learners in formulating objectives - this will include identifying the resources to be used, identifying that the objective has been met and identifying the method of evaluation deemed to be most appropriate. This corresponds to Carnevale et al's step two.
5. Involve learners in designing learning plans - keeping in mind the conclusions made in the preceding step. This corresponds to Carnevale et al's step three.
6. Help learners carry out their learning plans - with reference to the preceding step, corresponding to Carnevale et al's implementation step.
7. Involve learners in evaluating learning - this will help ensure that not only is the learner's acquisition of knowledge measured, but also judgement of the quality and worth of the training. As with Carnevale et al, the process ends with an evaluation.

The Training Wheel, as seen in Figure 1, is a model of instruction with

emphasis on the design process. It was developed by Rugoff (1979) as "some streamlined design suggestions for the pragmatist" (p. 133). The four steps in the figure are:

1. Find Out Who, What, and Why - these are the W's from journalism from which everything to follow depends. These correspond to the traditional needs assessment and audience analyses.
2. Define Realistic Objectives - this according to Rugoff (1979) does not only include clearly measurable objectives, as "a fuzzy goal that fits your who, what and why makes a better objective ... than a measurable performance objective that measures something nobody needs to know or do" (p. 133). The fuzzy goals are then used to gradually develop performance oriented statements.
3. Design and Implement the Instruction - keeping in mind the who, what and why since there should be a reason for everything that is done. This is closely associated with Carnevale et al's steps two, three and four.
4. Fix What Was Wrong - using the evaluation procedures you developed on step two and determine what part of the design worked and what did not.



Figure 1. The training wheel

The directions accompanying Rugoff's figure state "start at 12 o'clock, turn clockwise and spin around as many times as it takes to get where you are going ... if you end up ducking tomatoes, you know that your course needs a great deal of fixing ... I call it time to take another turn around the training wheel" (Rugoff, 1979, p. 133).

The Unit Plan of Teaching or the Morrissonian Theory of Instruction is a prescriptive theory which describes the necessary conditions for effective teaching and is easily translated into practice. Unlike Knowles' theory, it assumes that there are elements common to all teaching and it encompasses subject matter as well as teaching methods and learning.

The five steps in the Unit Plan of Teaching are:

1. Exploration - or finding out what the students already know about the subject to avoid unnecessary repetition and to assist mental assimilation of the new information.
2. Presentation - of a sketchy outline of the knowledge to be learned for the unit. This is called advance organizers by many.
3. Assimilation - or mastery of the subject based in part on what was already known. This, combined with the previous step, is Carnevale et al's Implementation Stage.
4. Organization - for a review of the subject matter according to the outline given to the learners in step two.
5. Recitation - or the students' presentation of what they have

learned, to their teachers and/or classmates. This is usually described as the evaluation component of the instruction.

From Info-Line's Basic Training for Trainers (American Society for Training and Development, 1988, p. 13), there is also a Four Step Skills Training Method for Job Instruction. This was first developed in the 1920s but implemented mostly in the Second World War. Again similar to the steps of Carnevale et al, the four steps are:

1. Prepare the worker;
2. Explain the job;
3. Give the learner practice;
4. Follow-up.

Although simple, these steps are so effective they continue to be used today.

Appendix A shows the Training Styles Theory and Practice Chart as it was developed by Brostrom (1979, p. 98). The chart shows how a trainer's philosophy ties into learning theories and practices. It is divided into Behaviourist, Structuralist, Functionalist, and Humanist philosophies according to the major theorists, B.F. Skinner, R.F. Mager, D. McClelland and C.R. Rogers.

The instructional procedures used in any situation, according to Shuell and Lee (1976), "should be consistent with the objectives to be taught and could be based on the underlying principles of learning. A valid theory of instruction will be equally applicable in all situations, although each situation may demand its own unique combination of learning principles. Unfortunately, there is no such valid theory presently available" (p. 79).

Instruction and Training

In addition to the theories and quasi-theories (depending on the freedom of the definition) included in the previous section, there are also some common practices in training and development. While the following practices are written about today and are of ongoing interest to educators, trainers, instructors, instructional designers and educational technologists, most have been in existence for many years.

Small Group Training - has been affected by "the growing awareness of the need to allow the affective dimension into the formal learning process ... whereas the traditional classroom setting emphasizes the cognitive aspect of human functioning" (Lubin and Eddy, 1987, p.3). The use of small numbers of

participants increases the effectiveness of the two-way communication.

Romiszowski (1981) discusses many of the "more common general-purpose techniques for instruction in the small group setting" (p. 311), and settings offering the possibility for small group instruction. They include group tutorial, seminar, workshop, clinic, and open-group discussion. Each can take place with larger numbers (Romiszowski uses ten or fewer participants), but within each, small group instruction can and should be implemented.

Student Directed Learning - places the responsibility for learning with the learner. S/he is typically given some degree of freedom with respect to time frame, content, approach, objectives, and evaluation. This is once again a highly studied method due to technological advancements, especially in computer assisted learning.

Programmed Instruction - is a variation to the student directed learning as the student is given some freedom but the designer of the instruction has complete control over the content and organization. This method of instruction employs pre-prepared materials which may be used by the learner independent of the teacher. In the past "the assumption was made that the aim of instruction was to

bring each student to the same terminal behaviours with the time as the only variable" (Heinich, 1970, p. 72). Today, however, the realization that this was not sound has led programmed instruction to identify as many of the terminal behaviours as possible and assist the learner according to the spread of possibilities.

Laboratory Training - can take on two different, yet similar, approaches. Instruction by examples, as described by Romiszowski (1981), is "underrated in education and training. Teachers spend too much time telling and not enough time showing" (p. 316). The second instance of laboratory training is learning by doing. This refers to a small group technique that emphasizes experience-based learning activities, usually involving small group interaction. In an era when formal education tended to stress technical training and the physical sciences, laboratory training programs are providing managers with the opportunity to upgrade their human relations skills also.

Simulation and Role-play - are designed to give individuals the opportunity to practice and develop their skills in a safe, supportive environment that encourages experimentation and risk taking. This allows the learner to portray a

possible situation which could assist themselves, other participants and observers in handling the situation. Case-study is a form of simulation where the learner simulates the decisions that would have to be made in a real life situation. This method of training is frequently used in business training and has been the basis of many post-graduate and executive programs in business administration.

Games - are an ever increasing method of instruction in business and industry. They are used for many purposes such as ice-breakers, creativity in problem-solving, team work, and competition.

Mediated Instruction - involves the use of media in instruction. Heinich (1970) focused not on the degree of use but on the control of the media. He uses mediated instruction to refer to any pre-programmed instruction, be it video, audio, or some combination.

Current Practice and the Future of ID

Richey (1986) proposes a theory of instructional design, using the sources of knowledge of the field from a historical perspective, and seeking ways to

generate new knowledge. She notes that "design is presented as a creative process ... emphasizing that instructional design is a discipline unto itself, and is [also] a methodological area of study and practice, with its basis in empirical research." (pp.9-10).

She differentiates between the instructional development that emerged from systems approach in the mid-1960s and continued to dominate for two decades, that is, procedures for designing instruction. "The latter refers to the step-by-step systematic processes that are used to create teaching-learning sequences. But design ... is more than a 'things to do' list. [It is] a discipline of knowledge that includes theory, research, and formal areas of inquiry and practice"(p.9).

This orientation toward instructional design goes beyond that envisioned by the Merrill-Reigeleuth theory, which sees design as one facet of instruction, mostly concerned with how we teach. It falls short of Briggs (1977) all encompassing view, which also includes the actual production of all instructional materials. It is important to note that current thinking on instructional design has expanded the application to a macro-design level -- relating "to the design of not only instructional materials, but of entire programs, and of other units of extended

instruction." (Richey, 1986, p.11)

As Richey (1986) also notes, while designers are very concerned with the delivery of instruction, they are not necessarily the implementers, or teachers. For current thinking on instructional design to become the prevalent view of the discipline, it is necessary to move away from concerns with the practical toward the theoretical – as Richey (1986, p.24) suggests, from the era of procedural models to that of conceptual models.

While nobody can accurately predict what will happen in the future, almost all indications are toward major advances due to technology. As fast as media releases are made to the public regarding technological advancements, so too do they become outdated. Skinner, in the late 1960s, wrote that the field of instructional research is one of promise rather than achievement. This is fortunate for instructional developers of today as the "move from basic sciences to technology is simple and direct" (Skinner, 1968, p. 249). Robert Heinich (1970) wrote:

...literature about education has shown a shift toward the use of instructional technology in education. Popular magazines have been featuring the coming infusion of technology into education. The literature within education is also shifting toward

instructional technology although not as rapidly (p. 15).

Today, and in the recent past, the shift toward technology in instruction and a technology of instruction is a critical issue. Not only must the training carried out be effective, but it must also be efficient; this means time and money.

"Instructional technologists in the business world concentrate on creating the leanest, simplest instruction possible ... The idea is to get trainees up to speed and back to their jobs as quickly as possible" (Oberle, 1990, p. 70).

With the continued pressures from employers to perform, the training departments must be careful. As Beckwith (1988) indicated, "instructional design is not a part of the established order in industry, military or university [therefore] instructional designers must be guarded from contamination and not be compromised by the various influences of the marketplace" (p. 1). However, in a 1991 issue of *Training Magazine*, a feature article focused on *Tech Trends*. The author said, "one trend that trainers will welcome is the relative affordability of much of the technology" (Flipczak, 1991, p. 78). This is quite acceptable, as the more technology can offer in the area of convenience and speed, the better, as long as the quality of the instruction is not compromised.

In 1985, Heinich addressed the issue of educators, including instructional designers, being responsive "to the organizational structures of which they are a part. To change their behaviours in regard to technology, the organizational structures may have to change. How is what we need to determine" (Heinich, 1985, p. 14). He also wrote in an earlier article, "regardless of whether management supports effective or ineffective instruction ... we are hired to implement management decisions" (Heinich, 1984, p. 78). Neither of these passages was intended to encourage trainers to accept poor instructional practices; instead he intended to promote the advancement of educational technologists (instructional developers) to decision-making roles.

All too often

"training and development are the caboose on the corporate train (but) training professionals have a legitimate place at the table when strategic issues are discussed. Training professionals will be less effective, as well as less valuable to an organization if they are merely fire fighters ... The essence of the training function is to serve as a part-time fire fighter because the trainer is an organizational problem solver" (Carnevale et al, 1990, p. 165).

Management Development

Historical Perspective

"Word of mouth, demonstration and limited written records were the primary media for early training. The Greeks found the Socratic method of carefully structuring questions and answers to be effective" (Knirk and Gustafson, 1986, p. 3). The earliest days showed very little sign of the theoretical approaches to training, but instead, training programs were adopted because, for whatever reason, they proved to work. It was the theory in use.

Training in the corporate world related most directly to the preparation of workers for their jobs. Training was not typically conducted in a school setting, but was done by the industry itself. This preparation by the industry group was logical as they knew the skills needed and the most practical means of accomplishing training tasks. Rather than every person seeking employment being trained individually by a single specialist, Knirk and Gustafson (1986) wrote about guilds being formed by people of similar interests, "In this system which peaked in Europe between 1100 and 1500 A.D., the masters and their journeymen trained the new apprentices ... factory schools were established in

the United States in the 1880s ... because the apprenticeship system did not provide the necessary numbers of trained people in the factories" (p. 4).

World War II saw an increase in the systematic training of workers as the need for skilled workers was immediate. There was not the strong emphasis on worldly education of the people nor the management of the people, but rather on skill-based training for specific jobs. This need led the industrial sector, and the military in particular, to develop effective training systems that would take the least amount of time and money, yet produce competent skilled workers. A study conducted by Miles and Spain as far back as 1947 (cited in Heinich, 1970) found that "Official statements of the training doctrine in the armed forces have consistently emphasized the point of view that all kinds of training aids and devices be used as aids" (p. 79).

Today, training of the workforce and the management group is done by universities and community colleges, the military and the corporate sector. It is an area of great concern as the importance of developing and retaining effective managers and leaders is recognized. In recent times of severe budget restraint and down-sized workforces, industry can no longer train a worker for a single

job. Rather, they must train workers who are prepared to move through the ranks of the company, from one position to another to give them a broader knowledge to use as leaders and managers. Movement of workers through such methods as job-sharing and job-rotation keeps the workers motivated in an attempt to keep production high.

In an attempt to determine the true effect of managerial training Brush and Licata (1983) found that:

Most managerial skills are comprised of knowledge and behavioural components which interact with noncognitive variables. To the extent that noncognitive and social-interactive factors play a large and critical role in the skill, there is less probability that an individual weak in this particular skill will become competent through training. (p. 36)

Training Styles

According to Robinson & Robinson (1989), all instructional designers/trainers can be evaluated according to their training styles. This is dependent upon the way in which the instructional designer is being used by the organization and the relationship he or she has with line management to link the training to business needs. In essence, the style an instructional designer uses is a composite of some degree of each of the three styles Robinson and Robinson

developed. The approach used with line departments is critical in forming collaborative relationships with clients. "[I]f you want to do all that is possible to ensure that the training will yield organizational results, then you must work as an equal partner with your clients, in a collaborative style" (Robinson & Robinson p.57).

The three styles identified by Robinson and Robinson include:

The **Expert Style** would include individuals who would, when approached by the client (internal or external to the organization), identify the cause of the problem along with the proposed solution. It assumes that the problem has been defined accurately.

A **Pair-of-Hands Style** would see individuals implement the solutions proposed by the client for a problem identified by the client. The trainer has no control over the solution proposed nor control of the accuracy of the problem identification.

The **Collaborator Style** has the individual as an equal with the client. They work together to diagnose the problem, and collaboratively determine a solution.

In the majority of cases studied for the development of the model, most people in the field will behave according to the Expert Style, with the Pair-of-Hands style being elicited least frequently. "As a profession, we have developed a body of expertise ... and are viewed by our management as the experts in human resource development" (Robinson & Robinson, 1989, p. 56). However we must work to "use our expertise in a collaborative manner."

Theories in Management Development

In any training program, those responsible for the training development and implementation are at the risk of taking on projects that may be beyond their expertise. One of the greatest strengths a trainer can develop is the ability to know when he or she needs the expertise of others. Not all instructional designers have the formal educational background to implement the process of designing and developing training programs. Many simply do what comes naturally to them. It may be something that was passed on to them from others in the organization or in another organization, or it may be based on experience and having learned from mistakes of the past. Argyris (1985) argues that all action is intended, consciously or not, to solve problems; either to provide a match between our intentions and what actually occurs, or to detect and correct

any mismatch between what was intended and what actually happened.

Argyris's argument is that the process we use involves a generic learning process similar to the steps in instructional design "the process of discovery-invention-production-evaluation is basic to much human action" (Argyris, p.78). If one were to act in a specific manner under set circumstances then he or she could expect a certain consequence. This, according to Argyris, is the basis for the Theory of Action.

In this theory of action, he indicates two less obvious features "first they are tacit ... because they have been learned early in life. Second, although these theories govern human action, when it comes to threat, they are most likely inconsistent with what is espoused to be our values and intentions" (Argyris, p. 80). Similarly, in training fields, some people have theories that they espouse or claim to follow, and some that they actually use called theories-in-use. People do not always do as they know they should, or as the theories tell them they should.

In an article presented at a 1988 AMTEC conference, Brown and Kennedy observe that "In the past, educational technologists were quick to play the role of the expert ...in the performance of a designated task, but often are not seen as having anything to contribute outside their area of expertise" (p. 8). They identify the major disadvantage of this expert role as the loss of control over the diagnosis of the problem, as the expert is usually called in after diagnosis. In looking at the collaborative style, Brown and Kennedy (1988) have the "consultant and the members of the organization join their specialized knowledge and together try to solve the problem" (p. 9).

Schon (1983) describes the various roles of professionals in contemporary life and the ways in which they think and act. He references Brooks specification of the "four professions -- medicine, engineering, business management and education" (p.15). Those employed in corporate training departments can be seen as operating in professional fields. It is the case, however, that not all people operating in a professional field are professionals (p. 4). Schon defines professional activity as one that "consists of instrumental problem solving made rigorous by the application of scientific theory and technique" (p. 21). To the other extreme of the professional, which Schon defines as "the antithesis to a

profession", an avocation is "based upon customary activities and modified by the trial and error of individual practice" (p. 22).

Knowing-in-action is another term referred to by Schon. His belief is that demonstration is proof of knowledge, but that "skilful action often reveals a knowing more than we can say" (p. 51). He also referred to reflecting-in-action as a thinking-on-your-feet activity suggesting "not only that we can think about doing but that we can think about doing something while doing it" (p. 54). As practitioners of a profession, some action is performed without much thought but "when intuitive performance leads to surprises, pleasing and promising or unwanted, we may respond by reflecting-in-action" (p. 56).

Trainers acting as professionals in very different fields "reveal an underlying similarity in the art of their practice and especially in the artful inquiry by which they sometimes deal with situations of uncertainty, instability and uniqueness" (Schon, 1983, p. 268) as compared to the avocation in which the practitioner bases activity on previously seen circumstances and situations.

In management development practice, the most common use of ID is the

Instructional Systems Development Model. As reported by Logan (1982), it is a simple yet very complex process for designing instruction. The approach, commonly used in corporate training departments, follows approximately along the following guidelines:

1. The training group receives a request for training assistance.
2. Study is conducted by the trainer to determine the causes and consequences of the identified problem.
3. If analysis shows the problem to be a skill or knowledge deficiency, the trainer develops a detailed learner-outcome statement and designs a learning package that will match media and method to the desired outcomes.
4. Specialists come together to develop learning materials to meet the outcomes.
5. The program is pilot tested, the results evaluated and the program revised while an instructional delivery system is designed and tested.
6. The delivery system and learning outcomes results are continually monitored.
7. The ongoing results are fed back into the design, development and delivery stages until the problem is evaluated. The program will be judged a success if the problem is resolved and the cost of solving the problem is lower than the cost of doing nothing at all.

Corporate management development should follow along the lines of an amalgamation of the methods highlighted above.

1. Corporate planning takes place in which opportunities and threats to the organization are identified thereby identifying possible need for training or other developmental activities. Often, as a more reactive system, a problem or potential problem is identified, and several possible solutions are named.

2. The problem or opportunity is analysed and a determination is made that training is a potential solution that should be investigated.
3. The problem or issue is clearly defined and an analysis of the actual needs of the employees involved is conducted.
4. It is determined what would identify success of the training program, and the evaluation plan is begun.
5. The objectives that should be achieved by all learners are determined and clearly stated in measurable terms along with identification of the tasks that the individual should be able to perform upon completion of the training program.
6. All learners are analysed to determine their background and individual needs and differences which may impact or be effected by the training program.
7. The instruction is developed by the trainer in consultation with the subject area specialists and the department in which the training issue was identified.
8. The evaluation plan is finalized and ready for implementation along with pre testing if necessary for the situation.
9. Training is delivered according to the plan.
10. Both formative and summative evaluations of training are conducted. This step would include the analysis of the return on investment (ROI) as well as the revision and recycling of training.

Implications for the Study

The focus of this study is Instructional Design and its implication in management training and development. ID, according to the literature, has for decades been procedural in nature. Most models present step by step procedures describing activities encompassed in the design, development, implementation,

and evaluation of instruction in a variety of settings.

While current literature in ID argues for a heavier theory base and the use of conceptual models, this level of sophistication is not to be expected in corporate training, where the focus is frequently on specific job training, and where those responsible for the implementation of training programs frequently lack ID expertise.

Management training today is recognized as a viable way to provide for ongoing growth and development within the organization. Management training style is related to the place and relationship of the trainer within the organization. In many organizations, the person's training style can be dictated, in whole or in part, by the organizational surroundings. Some trainers will rely on what they have learned in the past, whether through formal study, or simply by what works. In other cases trainers will do things the way they have always been done. This then has implications on instructional design as the trainer has to take his or her own training style preference into account in designing the instruction, while preparing for differences among the learners.

Argyris relates training efforts to ID, noting that "the process of discover, invention - production - evaluation, is basic to much human action." Use of ID in management training and development assumes knowledge of and competency in ID. Yet preparatory programs in business, at both the undergraduate and graduate levels, rarely incorporate educational technology courses or the study of instructional design. In the absence of formal ID study, how does management training evolve? As Argyris (1985) notes, people have theories they claim to follow and some they actually use. But people do not always do as theories tell them they should.

The most common model of ID in management training is the ISD model, also used by the military. The question is, how widely is the model actually used? Or, how is management training actually developed? This study sought to answer that question.

CHAPTER THREE

METHODOLOGY

Introduction

This study relied on interviews and questionnaires for data collection purposes. The semi-structured interview design constituted the major technique for data collection in this study. Rather than adopt a completely unstructured approach, some structure was necessary to ensure that the key areas were addressed in every interview. A degree of structure was also intended to control the length of time for completion of interviews. An informal atmosphere and conversational style was maintained. Every effort was made to ensure that the participants discussed what they know and use. While the researcher had an agenda to be achieved, it was not seen as the doctrine for what was discussed. The interviews could be considered "conversations with a purpose" (Burgess, 1984, p. 102).

The Instruments

This study used a three stage data collection design. First, once the subject was contacted and had given consent to participate, a short questionnaire was used to

determine his/her academic and employment background relating to training, some background information about the organization, and the reporting structure of the training department within the organizational structure. The subject was asked to complete a critical incident scenario to demonstrate how s/he would proceed with a training request. This information was also used to determine his/her application of a formal instructional design model in a corporate setting, since, if people's behaviour is observed, "you will quickly see that the espoused theory has very little to do with how they actually behave" (Argyris, 1993 p.89). The scenario was conducted prior to discussing the terminology of instructional design to eliminate bias by providing the subject with additional information on instructional design, thereby blurring the distinction between the espoused theories and the theories they use.

Second, the subjects participated in a semi-structured interview to discuss their awareness, comprehension and application of formal instructional design methodology. This phase studied in depth the topic of Instructional Planning; Needs Assessment; Task Analysis; Learning Objectives; Learner Analysis; Evaluation; Instructional Strategies; Revision, Assessment; Recycling.

Third, the subjects completed a questionnaire which described ten situations that commonly occur during implementation of training projects. The inventory scoring revealed the style that subject used most frequently in training; either *Expert, Pair-of-Hands, or Collaborator*. Samples of the Critical Incident Scenario and the Interview Guide are included in Appendix B, with the Training Style Inventory in Appendix C.

The Sample Group

For this phenomenological study a stratified random sample was selected of at least ten of the 25 largest employers in the province of Newfoundland and Labrador according to the number of employees at the time of the study. Subjects were stratified according to general industry sector and randomly selected from within that group. Appendix D contains the list of the top 25 employers, from which the sample was taken. All participating organizations employed at least 500 employees.

Administration of the Study

The data collection phase of the study proceeded with telephone contact with the individual in the organization responsible for management training and/or development. Verbal consent to participate was then established and some demographic information gathered. A copy of the consent forms as seen in Appendix E was then sent by fax to the subject and the subject's supervisor. An appointment was set up for the semi-structured interview. Consent forms were either returned prior to the interview, or available before the interview began.

The interviews consisted of discussion of additional demographic information as an ice-breaker. Then, prior to any introduction of terminology of instructional design, a critical incident scenario was completed by the subject. Interviews took between 90 and 140 minutes.

The final phase of the data collection consisted of the completion of a Training Style Inventory which was developed and extensively used by Dana Gaines Robinson and James C. Robinson. The results of this were then scored and plotted according to its accompanying instructions as seen in Appendix C.

Data Analysis

The data, once compiled, was content analyzed according to the individual results with discussion of common themes found between the sample subjects. The scores of the Training Style Inventory were used for comparison with the researchers classification of subjects according to degree of comprehension and application of instructional design and plotted on a grid displaying the four quadrants: novice; avocational, academic; and, professional.

These quadrants can be described as follows.

1. Novice -- those who do not know or use instructional design in management training and development. These individuals would score low in comprehension and low in application of that knowledge. They would tend to feel little comfort acting in any unfamiliar setting or problem.
2. Avocational -- those who have by some means of training or experience learned how to do instructional design but do not know the reasons for or behind the activities. They are considered to be high in application of

instructional design but low in comprehension. Given a familiar set of problems in familiar circumstances they are comfortable and competent.

3. Academics -- those who know instructional design theories and models, but for whatever reason, do not use this knowledge in management training and development. They would score high in comprehension but low in application. When experiencing unfamiliar situations, they can draw upon the theoretical knowledge to find their way through the problem.

4. Professional -- those who know the theories behind instructional design, and use ID regularly in the design of management training and development. They are considered to measure high in comprehension and high in application of the knowledge. These individuals would tend to find comfort in new problems and new settings as they have the theoretical basis and the practical application to succeed.

For ensured anonymity of respondents, the demographic information was not linked to the interview and style results.

CHAPTER FOUR

REPORT AND ANALYSIS OF RESULTS

Introduction

The ten subjects interviewed in this study were employed among the top 25 employers in the province of Newfoundland at the time of the study. All employed at least 500 employees. Appendix D lists the companies from which the sample was drawn. The objective of the study was to determine the awareness, comprehension and application of the elements of instructional design among the group.

Proposed Model

The development of a formal hypothesis was not appropriate for this qualitative research study. The premise for the research was that corporate managers responsible for training fell into one of four major categories of instructional design, including novice, avocational, academic or professional. This model was based in part on the writings of Schon and Argyris, then expanded upon to include the other two quadrants of the model, the academic and the novice.

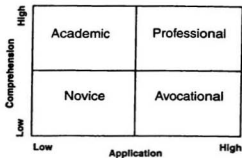


Figure 2. The four quadrants of comprehension and application of instructional design

Organization of the Findings

Information was acquired through the use of semi-structured interviews and questionnaires conducted with each subject. In conducting the interviews, as an icebreaker, the interview began with a discussion of the individual's background and the organizational structure. The initial question, a critical incident scenario, was posed prior to any discussion of instructional design. This open-ended question was intended to determine what the respondent would do in a given situation. The semi-structured interview then focused on the various parts of a typical instructional design model to determine the respondent's awareness, comprehension and self-reported application of each component.

Throughout the study any information which would identify the respondent or the company has been omitted. Demographics have been reported separate from the interview results for added anonymity. Respondents are referred to as Trainer One, Trainer Two and so on.

Demographics

Ten respondents were interviewed for this study. All but one respondent agreed to have the interview audio taped. Eight of the ten responded to the final phase of the study, the training style questionnaire. The sample group consisted of two males and eight females.

Table 1 provides a summary of some of the demographic information. All but one respondent had completed some form of post secondary education, with one respondent having completed a doctoral degree in a related field. It was not uncommon for respondents to have completed adult education courses, primarily through in-house or short train-the-trainer programs. Six respondents identified their position as middle management, one as senior management and two as front-line managers. The number of years in the organization ranged from one

to twenty-six with a mean of twelve, and number of years in the present position ranged from one to seventeen with a mean of only four. Only one of the respondents moved into their present position from a staff trainer position. The size of the training department ranged from one to fifteen with a mean of four-point-nine.

Highest level of education attained:

- High school 1
- Avocational Diploma 3
- Baccalaureate Degree 5
- Masters/Post Graduate 1

Area of specialization:

- Economics 2
- Education 2
- Technical 2
- Social Sciences 3

Source of instructional design training:

- None received 4
- Formal education 1
- Workplace training 5

Present position:

- Human Resource manager 1
- Human Resource consultant 1
- Safety and development 2
- Training/staff development 6

Level in the organization:

- Senior management 1
- Middle management 7
- Front line manager 2

Number of Years in present position:

• 1 - 4 Years	8
• 5 - 9 Years	1
• 15 - 19 Years	1

Number of years with the organization:

• 1 - 4 Years	2
• 5 - 9 Years	3
• 10 - 14 Years	1
• 15 - 19 Years	1
• 20 or More years	3

Number of employees in the training department:

• Only 1 person	2
• 2 - 4 people	3
• 5 - 7 people	3
• 8 - 10 people	1
• 11 or more people	1

Table 1. Demographics

Application of Instructional Design

The Critical Incident Scenario

The opening question was intended to determine the awareness and application of instructional design in a given management development situation. This question was asked prior to any discussion of instructional design theories, models, or terminology. All respondents were asked what they would do, given

the following situation: *Assume you are the manager of a training division in a large corporation and are asked to find, create or contract a management development program for five middle managers. How would you go about the task?*

In response to a training request the respondents confirmed, up-front, that the training being requested was really needed. This was accomplished in several different ways. When trainers did not know that a formal training needs assessment had been completed, they typically met with the subjects identified as needing the training and discussed the training request with them. Some trainers also discussed the request with the supervisors to ensure that there was agreement on the intended outcome of the training.

The degree of formalization of the discussions varied greatly among the trainers interviewed. Some were very formal with involvement of the senior management, while others simply wanted to know what the five subjects "wanted to get out of it." Also voiced by several trainers was the idea that the "real" training need is important for buy-in since "forced training meets with a lot of opposition." They saw the consultation with subjects and supervisors as a

means of increasing buy-in from various levels.

As anticipated, trainers thought it best to look for a program that would best suit the needs of the subjects. This was commonly reported since there were only five individuals identified in the scenario as needing the training. Trainers also indicated that they would look at the needs to see if there were others in the organization that required the same training, but might not have been identified by their supervisors as having the need. It was even suggested that the trainer could look to other similar organizations to see if they had a similar need, facilitating cooperation in delivery. This was seen in cases where the organizations were not in a directly competitive environment for service or products. No trainer indicated that a program would be developed for only five subjects. As the supervisory program requested was seen as fairly generic, trainers commonly cautioned against "reinventing the wheel" in designing a whole new program for just five people.

Cost containment in money and personnel was being felt throughout the local training field. This research proved no different. It was common for trainers to look at available resources up-front in the training cycle. Trainers referred to

the "allocation of resources" on several occasions in the critical incident scenario.

The least commonly used phase of instructional design reported was that of evaluation. Some trainers indicated that they needed to know the intended impact of the training and what people should get out of it, but only three respondents indicated that they would plan the evaluation of the training effectiveness or impact up-front, in the coordination of this training program.

The results of the Critical Incident Scenario clearly indicated that:

a) Needs assessments were important to the respondents and were conducted.

However, variation was found in the degree of formalization, and the level at which the assessment was conducted, whether formally or informally. Also absent from the analysis portion was the use of learner analysis and task analysis.

b) Cost-containment was an issue for the respondents. They tried to find larger numbers of participants who needed the training and sought internal employees with the expertise who could facilitate the training programs.

c) Evaluation was perceived as important, but was not being conducted.

The demonstration of theory in use was quite low.

Espoused Theory

The next phase of the research was the semi-structured interview. This phase focused on the specific stages in the instructional design process. Questions included what trainers did in certain areas of instructional design as well as the awareness, comprehension and espoused application of specific topics.

In order to put trainer responses into perspective, and to ensure that terms used are the same for the trainer as for the researcher, several definitions were requested. The first of these was a definition of what they considered management development to be and if they felt there was a difference between management development and management training. An acceptable definition of management development from current research would indicate that *it is a process attempting to improve the effectiveness of management through a planned and deliberate learning process.*

Respondents seemed unanimous in their responses to the meaning of management development. Seven of the ten respondents felt that management development was directly related to the development of managers for the benefit of the organization. The other three trainers felt that it referred to training, or imparting the skills and knowledge required to do the job of managing. Eight of the ten trainers felt there was a difference between training and development. It was clear from the responses that they felt development went beyond training or that it encompassed training. Tables 2 and 3 list some of the definitions of management development and management training respectively as given by the trainers in this study.

Trainer	Response
1	[look at management development] in terms of progressive management experiences [and we strive to] broaden the focus of what we are expecting of people, keeping up with trends and innovations, but mostly as it relates to where we expect the person to be in the organization [and]... where the company is going. We take a more general approach, training all supervisors the same.
2	[G]iving people the knowledge that they previously had little exposure to.
3	[D]evelopment of the actual skills in dealing with people as a manager ...[We use development] to bring everyone on track talking the same language and doing the same thing ... it was for the benefit of the organization.
4	Management development is training, you have to look at the needs and meet them.
5	Management development would be developing all managers at all levels in the organization in the skills, behaviours, and attitudes to support corporate direction.

Trainer	Response
6	I consider management development to be gaining of past knowledge from others and any support that may be required to attain that, whether that would be within, outside their main division ... Development refers to how an individual would develop within the existing organization through such things as transfer technology, gaining experience from those working around them and then taking the initiative to broaden opportunities.
7	Keeping people up to date on current trends, theories of change, organizational planning, performance evaluation and all that managers need to be aware of quality and client satisfaction
8	The skills training and the training needed for someone to take on the role of manager. This would include such things as delegation, team building as well as the conceptual issues involved like executive development and leadership. Other things would include what the organization expects of managers in order for them to fit the mission of the company.
9	[It's] things like the styles of management, principles of management and things like negotiating skills or human resources ... [and] topics like arbitration skills, managing difficult people, discipline and other skills needed for day-to-day effectiveness as a manager.
10	[It is] the things he or she needs to become a manager such as what is management and what is a manager. It would also include how you develop as a manager, the soft skills of dealing with people, as well as management duties in a technical sense like visioning, strategy and goal setting ... along with program measurement to determine their effectiveness.

Table 2 Trainers' definitions of management development.

Trainer	Response
1	[It] involves getting the skills required to do the job.
2	[T]raining relates to the present job.
3	This gives people the technical knowledge to do their jobs.
4	Management development is training.
5	Things not supporting the corporate direction, but for the individual are identified as training.

Trainer	Response
6	A training program you would make available to employees without them necessarily taking the initiative. It's something that is given to them.
7	Training deal[s] more with providing individuals with skills
8	Management training would include things like the knowledge, skills, [and] attitudes for the person to do their job.
9	[Training is] for the individuals personal growth and development.
10	Training would be like a particular program that somebody may take. It is a part of their development.

Table 3 Trainers' definitions of management training.

The links trainers saw between management development and management training are illustrated in Table 4. The most appropriate response would indicate *that management training is a subset of management development, as training is one of many ways for an individual to develop.*

Trainer	Response
1	[D]evelopment as a whole is not only skills for the job, but also looks at the personal aspects. When you get into management development you are also looking at personal attributes over and above certification [for the job].
2	[T]raining relates to the present job but development [goes] beyond that by including things people aspire to by a planned path, by their goals or according to the organization's plans for them.
3	Development focussed on the need to get [all managers] to see the top down practices ... [training] prepares [managers] for doing the job.
4	Management development and management training are one and the same thing

Trainer	Response
5	Training is a part of development and development can include things over and above training.
6	Development is anything that develops the person within the organization. Other things, like learning different skills not for the organizations needs are supported but are just something given to them.
7	Training dealt more with providing individuals with skills whereas management development was continually providing people with the opportunity to further develop their skills and knowledge.
8	Development goes beyond training because it looks at things more globally.
9	[Management development] is based on the needs of the organization of the manager in the organizational setting [while training is] for the individuals personal growth and development.
10	Development is a lot more than training. You can have training without looking at a person's development, but you cannot have development without looking at the training aspects with them.

Table 4 Trainers' perceptions of the differences between management development and management training.

Who Gets Training?

Question 5 was aimed at eliciting information on who receives the managerial training. The anticipated response, based on informal discussions with similar organizations, was that it was based either on an identified need or alternately as a perk for the better performers. The responses yielded a little more information than anticipated as some trainers also addressed the fact that the level in the

organization also determines if people get training "[m]iddle managers get the most ... senior managers are considered to have the skills needed."

The common theme from all respondents to this question was that all managerial and supervisory level employees get training or have access to training based on their own and departmental needs. There were instances where trainers indicated that "there is not a lot of thought into who gets the training" or that organizations "identified some very general themes and everybody was put through because we wanted to get them all to the same place." It appeared that all managers got some training, though not necessarily the same or in the same degree of detail.

The second part of this question asked how the decision is made as to who gets the training. The common response was that some form of needs assessment was used to determine common needs. In some cases this need was determined by the department or the supervisor, while in other cases a formal annual performance assessment identified the needs. Unfortunately the need was not usually an individual manager's need but an organizational need or a generic need based on position.

Instructional Planning

The next topic of inquiry in the interviews focused on the instructional planning process. Again a working definition of instructional planning process was requested to set a basis for following questions. Most trainers could give a succinct definition of planning, however one trainer could not "put words to it." Table 5 illustrates the definitions trainers gave for instructional planning as well as the identified starting point for planning. An acceptable definition would include indication that *it is an ongoing, planned, systematic process of planning proactive training programs for corporate direction, determining what training needs exist, and a proposed method of addressing those needs.*

It became clear that instruction was done primarily as a reactive procedure. It was evident that these trainers plan instruction primarily based upon an identified problem. In very few cases did the trainer indicate that planning had been done as a proactive policy. The starting point of instructional planning for six of the respondents was when a need had been identified. Others identified the starting point as either the budget preparation time or that every position in the organization had a training and development plan.

Trainer	Response
1	Instructional planning helps to ensure that delivery is as specific as possible to the group and the time frames ... Diagnosis of the problem and activities of the group or the organization is usually the starting point for us. Other things must be trained for based on problems, but they may not always be a part of the plan
2	You have to take into account the goals of the organization and the skills of the employees and what to achieve. The training has to be designed to show when and where the skills come in, like in what modules. The time for the course ... Management development needs a lot more situations to demonstrate or to prepare for. It has to take a lot more real world differences into account in the training. Planning is a first step since you have to know where you are going in order to know when you get there.
3	[Trainer could not define instructional planning and] would never "have used the term" ... the starting point would be the identification of a need whether that is an organizational need, a unit need, an industry need or an individual need.
4	[Trainer could not define instructional planning] [Y]ou meet with directors and try to get the facts together and see what is needed by department and by person but the needs of the department always come first.
5	[I]t ensure[s] that the program you plan addresses the needs [since] for many organizational problems, training [is] not the solution. As a starting point we would diagnose the needs, but only after the doors to communication have been opened. In the line of authority we would determine what the staff [is] doing well and what they are not doing as effectively.
6	[Planning] changes depending on the demographics of the organization. The plan will depend on what has to change and the logistics involved in the training. It certainly involves taking past experience and where they are to date as clearly identifying areas of training and ... accommodating those facilities with the work force by working with them all the way through.
7	I suppose if you are planning, your needs assessment, your objectives, your content, your resources would be needed. I can't see how, no matter who you are doing it for, how you can develop training without knowing the background ... no matter the level of the employee, they all go through all the steps right from the needs assessment to the evaluation and follow up afterwards. [We] start planning immediately after I was asked to develop a program. When I try to identify a problem.

Trainer	Response
8	[It includes] four phases, assessment, planning, design/delivery and evaluation, however, the instructional planning cannot really be done until the assessment of the needs has been completed. Planning is the second phase and must come after the assessment but must be done prior to anything else ... In planning instruction, the trainer develops the objectives for activity, and determines the material and other resources that must be assigned to the training. This would include time, personnel and money required at all four phases.
9	[It includes] everything from needs assessment through to outlining how a course appeared in the classroom and everything in between ... We would do a needs assessment, either individual or organizational needs; we would prioritize them in consultation with the senior management; we would decide how best to respond to the need to develop something in house or to have it customized outside. Then we decide how to most effectively deliver the training including the location, the mix of participants and who facilitates the session ... The starting point was always the identified need along with the decision as to whether it is a training issue or not.
10	[You] want to know the outlines, methods, materials, formats for delivery of training. In addition, the methods of feedback that learning was taking place was also required. The starting point was the needs assessment for new managers, rehiring people after layoff, new equipment, promotion, changes in procedures or capital budgeting expenditures.

Table 5 Trainers' definitions of and starting points for instructional planning.

In addition to the definition and planning process itself, trainers were asked for the perceived benefits and drawbacks to planning and the factors that could influence planning. The most common benefit, as illustrated in Table 6, while identified in a variety of words, is that it shows where you are going so that you can determine when you have reached your goal as a trainer, and assisting learners to identify, for themselves, where they should be by the end of the training program and at various points throughout. The main drawbacks, each

Trainer	Response
1	You can deliver it ten times better.
2	You have to know where you are going in order to know when you get there.
3	I would get nowhere without it
4	You have to do planning before you start in order to have a plan to follow to meet the needs.
5	If you plan well, you will get the return on investment. It ensures you have the buy-in early and keep it throughout.
6	Planning is most critical as it focuses on the requirements that need to be met.
7	It gives credibility to your staff and your department; you know exactly what is going to be covered; you know exactly what you are going to need in terms of resources, dollars, material, your classroom.
8	Without planning you are lost. You don't know where you are going, you don't know how to get there and you don't know when you have reached that point
9	[The benefits are] too numerous to list ... everything from ensuring that the response was appropriate so that the ultimate consumer of the product was involved, to having participants involved in the planning so that they gain ownership and can see the alternatives available to them. You also get people thinking about the issues and goals and you get their buy-in up front.
10	I wouldn't want to work in this job without planning. You are held accountable for what is done as well as the budget it has taken to get things done. Planning allows you to do this as efficiently as possible.

Table 6 Trainers' perceptions of the benefits to instructional planning.

identified by five of the ten respondents, were the risk of inflexibility on the part of the training and the amount of time required to adequately plan for instruction. Table 7 illustrates the perceived drawbacks to instructional planning.

Trainer	Response
1	Sometimes you can be too narrow. You can develop tunnel vision ... [and] limit what you look for and therefore what you look at.
2	Sometimes if the plan has too strict a schedule it can't be kept.
3	"The only [drawback] is that if the person is so methodical and follow[s] the plan to such a degree that individuals will fall through the cracks.
4	[It is] time consuming, and with everything else I have to do, I don't have time for planning too.
5	It does require a lot of up front time which can be hard to do when a lot of time is spent on crisis management.
6	The biggest drawback was the employees themselves ... There are opportunities available for advancement through internal training and external training that employees do not take the initiative to take advantage of.
7	I suppose there are drawbacks to everything, like you have somebody who gets carried away and spends too much time planning.
8	[You could] get into a mind-set and begin to lose the flexibility.
9	[I]t is very time consuming and costly. As well, if there was much modification required and therefore delays in responding, the needs may have changed by the time the trainer could address them.
10	[S]ome organizations are too inflexible. You have to be able to accommodate changing needs.

Table 7 Trainers' perceptions of drawbacks to instructional planning.

The most frequently identified factor affecting planning was the time it takes to plan, and that those requesting training often require it in the short term as opposed to waiting for adequate planning to be completed. The only identified reason for revision of the plan, common to several trainers, was that the training was no longer required due to changes in the organization such as new corporate

direction or technological advancements. Only one trainer identified revision taking place because it "was not effective the first time out." Three respondents also included budgetary consideration as a possible reason for revision of the plan.

Formal ID Components

The next section of the semi-structured interview focused on the formal instructional design components. The opening questions again addressed the trainers' definition of curriculum development (Table 8) and where they came up with the definition, a definition of instructional design (Table 9) and the similarities between the two. Theories or theorists with which the trainers were familiar were also sought. An acceptable definition of instructional design would have included *reference to the systematic approach to the design, production, evaluation and utilization of complete systems of instruction.*

The most noticeable theme in this series of questions was that there was no great consensus on the relationship between instructional design and curriculum development. Seven respondents felt that instructional design encompassed

curriculum development, one felt they were different names for the same thing, and one felt curriculum development encompassed instructional design.

Also noticeable was the fact that two of the trainers could not offer a definition of the terms, and of those who did define the terms, few suggested that they had learned the terms in formal educational settings. Most defined the terms based on their own experiences. Only one of the trainers interviewed could offer specific information on theorists or theories of instructional design.

Trainer	Response
1	[It is the] careful planning of all components of the program and the delivery of the program to meet the specific needs in the most effective and practical manner ... we include the major components we need, and then the developer will come back with the curriculum of what they will do.
2	The when and how's of content rather than the process.
3	Curriculum development is the planning of the program. If you asked me for the plan to deliver a program, it is the whole thing from beginning to end including the needs assessment and the whole gamut.
4	[Trainer could offer no definition of the term instructional design, nor curriculum development.]
5	Curriculum development involves taking the objectives and developing training through research, knowledge, the actual material to be taught. Curriculum development is a part of instructional design
6	Curriculum is a part of the instructional design. We would change the curriculum to meet our needs and to meet the needs of our instructional plan or design.

Trainer	Response
7	It includes everything we do... identify the need, who is the target audience and determine the needs and what they will bring with them, what is the overall goal of the program, develop measurable objectives, identify resources, your reference material, and have a method or plan for evaluation.
8	[It] includes all things offered in related areas and how they are sequenced and the combination of courses offered
9	Curriculum design determines what is delivered and how it gets delivered.
10	Curriculum design is basically what you want learned or understood.

Table 8. Trainers' definitions of curriculum development.

Trainer	Response
1	[I]nstructional design encompasses curriculum development.
2	[Y]ou have to consider the method used to teach or to expose people to skill or technology. For example what to teach, how manual vs hands-on, and how to demonstrate that the objective was.
3	[It] encompass[es] everything. [But] particularly in the delivery process including the instruction style, the seating arrangements and types of AV equipment and teaching tools.
4	[Trainer could offer no definition of the term curriculum development.]
5	[It is] the development of educational programs based on need with content experts and with the appropriate delivery method to achieve some end.
6	Instructional design varies from whoever's philosophy you are talking to on any particular day. I don't see any consistency in instructional design occur in management philosophy. Every operation requires different instructional designs, not just something that can be taken off the shelf.
7	Trainer was unable to define instructional design. She felt ID and curriculum design referred to the same thing but would use the term curriculum typically.

Trainer	Response
8	[R] is based on your overall plan but also on the assessments you conduct. It includes all content which should be designed based on the objectives that have been set out. It includes finding a logical sequence for delivery, all associated materials and support material, and everything up to and including the evaluation of the outcome of training but begun up front with the objectives.
9	Instructional design is a process used to ensure that the product gives you what you need from it. It ensures that you learning objectives are consistent with the overall needs of the learners and it ensures that the materials design and the format of delivery are suitable to achieve the objectives.
10	[I]nstructional design is the format to use in teaching ... It is basically the course setup.

Table 9. Trainers' definitions of instructional design.

Needs Assessment

The next set of questions focused on needs assessment. They included a definition of needs assessment, the use of needs assessment in management development and the perceived importance of needs assessment or what it could accomplish.

All trainers interviewed knew what needs assessment was, and at least six felt that they did a good needs analysis for management development. A suitable definition should include reference to *the identification and analysis of a discrepancy between what is presently observed and what is desired*. Table 10 illustrates trainers' definitions of needs assessment. One of the two respondents

indicated that needs assessments are not conducted for management development, because of the size of the training group and because the training

Trainer	Responses
1	If you are responding to a problem or if you are surveying all possible issues exist. Needs assessment for a new concept [would include] a survey of people and processes currently existing. When there is no identified problem, the needs assessment is an investigative breakdown [in search of] a causal relationship.
2	[It ranges] from what problem is identified to what different groups see as the problem or the weaknesses that could cause a problem ... The organization does not do needs assessment for management development because of the size of the training group within the company. Instead they rely on the performance review process since it is based on the manager's and the employee's feedback.
3	[Training direction] comes out of management needs as a whole and from a CEO with a vision, who realized from talking to others and knowing what was to come down the road [that] we needed to be better equipped to handle the changes that we were going to face. I don't think any needs assessment is usually done.
4	[A]ny needs in order to perform the job for the department you work for. We usually do needs assessment by writing to the departments and asking what the departments' needs are.
5	Needs assessment is the initial process where you ask all levels of management to focus on the vision and what is necessary for that to happen. It is a 360 degree look at the specific training required.
6	We make sure management is aware of activities and needs of other departments so they see their own departmental needs but can also see areas in which they can help out.
7	[We have] tried them all. We have developed questionnaires and open ended questionnaires; we get suggestions of topics people would suggest and put them in order of priority; we have conducted interviews with set questions; we have asked to attend staff meetings; we have posted asking for suggestions; we have had suggestion boxes; we have talked to managers to see what they feel are needs for their department; to senior management to see what the organizational needs are; and something we haven't gotten into as much as we should have is looking at performance appraisals, not in terms of individual performance, but what is identified as a learning need as part of performance appraisal.

Trainer	Responses
8	We determine the performance to be improved by looking at the environment around the individual as that may be more of a problem than the actual ... you may need to use some form of 360 degree assessment with peers, subordinates and supervisors ... then determine what the issue is since a process or organizational policy may be the real underlying problem... [Then we] look at what specific needs have a training solution. This will help you get the buy-in of everybody involved from the employee on up.
9	We do needs assessment by looking at the organizational needs and the key players to achieve them ... at how the organization is changing, therefore how is the role of the manager changing ...[and] for the gaps that can exist and then rule out possible causes and problems.
10	[It is] finding out what people need ...[that] can be done individually or as groups in departments or within the organization. Things like brainstorming for any member of a team to improve performance. We use a modified form of the DECUM process to identify peoples needs in similar positions.

Table 10 Trainers' definitions of needs assessment.

comes down from the CEO's vision. While the use of needs assessment is not often thorough, there is agreement by all respondents that these assessments are important for a variety of reasons, ranging from ensuring delivery of programs that effectively meet the needs of the individuals and the organizations, to avoiding the competition for the already scarce training dollars. Table 11 illustrates the perceived importance of needs assessment.

Trainer	Response
1	It plays a major role in the delivery of the program and eliminates a lot of redundancy by looking at what has already been done and what may have been missed. The training can be much more specific.

Trainer	Response
2	Since there are no immediate results or improvements immediately seen, [needs assessment] is often pushed aside since they feel they know what their people need. Management often doesn't look at the long term investment.
3	We need to know the strengths and weaknesses of managers in the organization and where [the organization] is headed and making that more of a priority ... before implementing needs assessments we need to know the goals and [the] direction the organization is going to take and then gear ourselves accordingly. So, I guess it is important but certainly not alone.
4	We usually do them.
5	[Without it, it's like] throwing an arrow blindfolded, there is more chance of missing the target than of hitting it accurately.
6	[It is important] in order to eliminate the competition within departments that often exists for training budget dollars and to really determine useful training budget.
7	Whatever you are doing has to be of benefit to the individual and the organization.
8	[If an assessment was not well done, or buy-in was not achieved] you can't be confident that you should even do the program. You may end up doing a great program but find out that it has nothing to do with the [real] needs.
9	They're critical if you want training to work.
10	We don't always do it, but it is good.

Table 11 Trainers' perceptions of the importance of needs assessment.

Task Analysis

The next phase of instructional design addressed in the interviews focused on Task Analysis. Trainers were asked for a definition of task analysis (Table 12) and about the use of task analysis in management development. The most common theme to come from these questions was that while nine of the

respondents offered a definition of task analysis, eight indicated that it is not used for management development (Table 13). The two who used task analysis, noted that it was for the achievement of a specific skill set for the manager's position. A suitable definition of task analysis *would include the breaking of a learning task or procedure into a series of required steps and the skills required to advance to each step.*

Trainer	Response
1	[It is] something normally used in relationship to specific job functions.
2	[The] analysis of all components from the beginning of the process to where you actually end up.
3	It's probably as it says, you look at the components of a tasks to see where strengths and weaknesses lie.
4	[Trainer could offer no definition.]
5	[For us] Continuous Quality Improvement flow charts [are used] for accuracy and completeness. [They take a] very in-depth view and look at the steps in a job, the responsibilities and tasks to be performed.
6	[It is uses as] part of a succession plan for all management positions.
7	[It is] looking at a task and breaking it into the components that make it.
8	It is the description of the job and the tasks or competencies required to do that job. It also looks at how people stack up to the position and what gaps need to be addressed
9	[I am] not sure how I would define it, but it would be looking at individual tasks that must be completed, breaking everything down I guess.
10	It is the breakdown of all the components for a task to be completed.

Table 12. Trainers' definitions of task analysis.

Trainer	Response
1	It would not be used for management because it is not very specific. Similar positions can have very different activities to perform.
2	In some programs it would be used, such as with a specific functional group within management ... They have to have active needs assessments and task analysis as they expand their business. I don't really know why we use task analysis, but I guess it is to gain efficiency and make sure all topics are covered, so there are no gaps left afterwards.
3	Staff realize their needs in some of the more subtle skills and issues. They determine that based on other training they did, not that a formal task analysis was done.
4	[Trainer did not know if task analysis had ever been used.]
5	We [use it to] look at how people are at financial analysis and decide what they need to do differently or better. We really do this in order to find the real cause of the problem and to target the training at the root of the problem rather than the symptom. It is best done through direct observation of people actually doing the task and look for the needs or problems.
6	[We] do not use formal task analysis in management development.
7	Task analysis is not used for management development.
8	[We do] not use task analysis for management development.
9	We do not use task analysis in management development or management training.
10	It is occasionally used for management processes, but things like safety require that it is done every time. A modified form of DECUM is occasionally utilized.

Table 13. Trainers' responses to the espoused use of task analysis in management development.

Objectives

The next set of questions referred to issues around the topic of objectives. The trainers were asked the type of objectives they used for management development, where the objectives come from, the importance of using

objectives along with perceived strengths and weaknesses.

Responses indicated that eight of the ten respondents used organizational or departmental objectives over learner or job specific objectives. Table 14 illustrates some of the types of objectives used for management development, and from where they are typically derived.

Trainer	Responses
1	[We use] organizational goals and directions as objectives. When you know where the company is moving then this is what we want individuals to achieve. There will then be other needs and objectives for individuals.
2	The company objectives are based on annual corporate objectives which are relayed to departments. Seminars for each group discuss the goals and objectives to come up with agreement. We need to do that to know that the training provided is based on where the organization is going and where the people are.
3	[The CEO] looked at where things were going at that point in time. They were what the organization needed and what we needed as a group to bring us to the current situation.
4	[Our] objectives [come] from the divisional managers or directors.
5	[Our objectives] are broad for both programs and for the overall organizational vision, but clear enough that the learners know where they have to end up. The objectives are developed and validated by a content area expert.
6	[We] use job specific objectives based on milestones that must be met. Good, measurable objectives are critical. Every employee and every organization must have clearly identified and attainable objectives.
7	Once you have identified the broad topics you have to research to see what the content is going to be and your objectives are written to reflect the current literature along with what has been expressed as what they need to know or learn.

Trainer	Responses
8	The main consideration is what we want to accomplish from a program or departmental perspective, and secondly, for the participants. Our objectives come from the identification of where the organization is going, from where particular departments are going and how to remain viable.
9	They usually are fairly unconscious, coming from conversations with the CEO as an extension of the strategic planning process. It is something that has to be done. Learner objectives are not usually set by the training department, but could have been in the training materials.
10	[Objectives] are always problem based not just out of thin air.

Table 14. Trainers' responses to the type of objectives used for management development.

All respondents felt the use of objectives was important, with several common positive outcomes to using objectives. The most noted positive response, by at least six respondents, was for the trainer and the learner to see where they have to go and have a way of identifying when they reach that goal. There was no unanimously negative aspects although three respondents commented that the use of objectives can be "frustrating when they are not attained." Three respondents said that objectives can be limiting if used without flexibility. Two others indicated that having written objectives allows people to use them to judge the trainer or somehow turning them negative. Table 15 illustrates the trainers' perception of the strengths and weaknesses of using stated objectives in management development programs.

Trainer	Responses
1	If you have a clear idea of what you want to get out of the program then you can choose the best means of delivering that. It also helps you in preparing people who are going into the program ... It makes a big difference when you sit down and tell the people who will be participating in showing them why you want them to do it and what is expected of them ... [but] if you are too clear cut and specific you may be missing something or limiting something that could have been a benefit if it was tried.
2	[Objectives] allow you to predict what you need to do in the coming year and look at year end at the fact that people meet the challenge put to them due to the skills and the training. When, for whatever reason, the training cannot take place it can be really frustrating as eventually the job will have to be done, so you feel responsible.
3	[Objectives are critical] since you have to have them to know where you are going and how to get there. Otherwise you are in limbo. When something you don't expect occurs and the objectives are not met you still have to account for that to somebody, if anybody truly cares that you have them written.
4	You must have objectives to get a clear path to the goal. You have to know what to achieve.
5	The positive aspect is that you can evaluate progress and ensure return on investment ... [and it] gives [learners] something to aim for and ways to measure their progress in getting there.
6	A clear understanding of what is expected [of employees] is critical. The effort to achieve objectives is the most important thing ... [to] keep people motivated to strive for their objectives they must be realist ... [to] provide ludicrous objectives totally defeats the purpose. Providing aggressive objectives that are attainable even though they may not always be met, you are still satisfying what the end result must be.
7	Learners need to know what is expected of them and whoever is delivering needs to know what the learner needs to get from the program. If you don't have any objectives, then what do you evaluate? ... [but] there is a fear of going overboard in trying to cover too much in the session because of the objective.
8	[I am] not as vigilant now as when I was new at it. They are not written down as much, but they are know from experience ... [if] objectives are poorly written or written without consideration for the participants, things get sidetracked ... for people who learn from a creative perspective, there is less free thinking allowed, and it is more linear.
9	The most negative part of writing objectives [is] trying to define one that is clear and measurable [and] distinguishing between learning objectives and teaching objectives.

Trainer	Responses
10	[Objectives] allow the learners to know where they are going and where they are expected to be at the end. It allows them to aim for something ... [t]here are sometimes things you want people to be able to do and you can better achieve that without telling them.

Table 15. Trainers' perceptions of the use of objectives.

Learner Analysis

The next series of questions in the interview related to the use of learner analysis. Specific questions addressed the use and the perceived importance of learner analysis. The obvious response here was that these trainers did not use individual learner characteristics in management development. While this was the response from eight of the trainers, as seen in Table 16, it was also clear that six of these trainers relied on the requesting departmental supervisor or the individual learner to screen themselves, so that they attended only training programs for which they were well suited. Not a lot of importance was placed on the training department need to screen the learners according to any given characteristics, as it is done more globally within the organizations. Four respondents said they used programs that appealed to various learning styles to accommodate differences. Only one trainer indicated the systematic use of individual learner analysis for management development, although six described

them as important or very important.

Trainer	Responses
1	You need to know their motivation and communication ability to complete it and get something out of it. But learner characteristic is not something I go into with a checklist. In most cases it is done with directors and department heads who know on a working basis the people and the different needs and abilities and who is appropriate for it.
2	The supervisor does his or her homework before recommending a person on a course. We don't look at entry level characteristics, and we don't look for learner variance ... we just hope the course takes all styles into consideration during delivery.
3	We have to look more at individual packages for people as opposed to 200 people in a room and this is what you are going to learn ... to be more effective. I don't think you get a big bang for the buck by putting 200 people in a room and that's it ... We need to know learners in order to have packages to suit individual needs.
4	[L]earner analysis seems to have its merit, but there is no great need for it ... some managers select people to come based on their knowledge of them.
5	We would sometimes look at groups by functional work division to look for strengths and weaknesses such as not sending accounting managers on an introductory accounting course ... [S]ome learners are much better with different instruction methods than others ... like lecture versus independent study, but individual analysis is not conducted.
6	[We use learner analysis because] each individual has to be reviewed on an individual basis rather than on overall corporate philosophy. To get the best bang for the buck the learners need will or may be different for one person than the other.
7	If you mean do we actually put it on paper, no. We do look at differences in background, education and experience ... You sort of have to develop something to meet the needs of a range of individuals without intimidating the less experienced, less educated people.
8	There are various activities to accommodate various styles, so everybody should be accommodated in that way. We are not yet at a stage where we can consider entry level characteristics. Instead we respond to the issues of the work groups as we feel they are all very similar. For a person who knows their own learning style it is evident what to use, but people must be able to look at learning from styles other than the preferred method, they can often learn more from another learning style.

Trainer	Responses
9	We know our managers and what their differences and problems are as well as their preferences. The only variances we take into consideration would be between different groups.
10	It is hard to assess people's weaknesses in a unionized environment ... people will often try to turn good objectives negative, they will do the same with knowledge of learner characteristics, and try to use them against the person.

Table 16. Trainers' espoused use of learner analysis.

Evaluation and Return on Investment

The next series of questions focused on evaluation. Again respondents were asked for their definition of evaluation, and the perceived importance of evaluation. Additional questions addressed the understanding and use of formative and summative evaluation, of testing and of measurement of return on investment. All respondents were able to offer a definition of evaluation with responses ranging from ensuring the information is understood and transferrable to ensuring that the objectives are met. A suitable definition should somehow refer to *the demonstrated achievement of the measurable objectives*. Respondent definitions are listed in Table 17. Only one respondent indicated that he did not

Trainer	Response
1	Actions speak louder than words. It would be more common to ask individuals to do write-ups of specific programs after they have finished, or to go to a supervisor to see if there was evidence of a change in behaviour or attitude ... We ask people who have completed training for suggestions and new ideas they have as a result of the training ...for their opinion of putting others through the same program, was it what they expected.
2	[It is] a process to ensure what you thought would be taught was taught and can be transferred to the job situation, readily absorbed and understood and they got what they were looking.
3	We need [evaluation] because we don't really know that anything we are doing is really of any value to anyone. If we are to get any return on our investment, or any bang for the buck, we need to evaluate Goals and objectives must be set up front, and evaluated after the fact.
4	To see if the objectives were met and if the desired outcome had been achieved.
5	A measurement of whether the objectives were met or not.
6	Evaluation [of] the training, [if] not specifically related to the job they were doing, focus[ed] on the content primarily but also on the delivery. Job related training was evaluated based on how it was used, or if not, why not?
7	[T]he method of determining whether or not the learner has achieved the objectives you have set. Determining the outcome and if the program was successful relative to what you set out to do.
8	Evaluation is just as important as assessment.
9	[It's] determining if the training had any impact on the how well people performed on the job.
10	If the training is important enough to present to the learners, then take the time to evaluate if it was received or not ... I think all people and programs should be evaluated to some degree ... [to see] if learning took place.

Table 17. Trainers' definition of evaluation and its importance.

evaluate management development. Of the nine who did, three used the lowest level evaluation, 'Did the participants enjoy the training?' and the other six use

a variety of methods of evaluation to look at application on the job to return on the investment. Table 18 illustrates how trainers evaluate. Of the eight respondents who felt that evaluation is important, five felt the importance was to see if the learning was being applied on the job.

Only two respondents were familiar with the terms formative and summative evaluation, however in their definition and use of evaluation, all used some form of summative evaluation. Formative evaluation was not identified as used by any respondent, but it was clear that many of the programs being summatively evaluated "will be repeated at some point". Only one respondent said that testing was used in management development, and this was only if included as part of a course.

Trainer	Response
1	[I do not] see training as a cost but as an investment and [we] ask was it a good investment ... It's not such a big thing at higher level [of management]. It is more a personal thing, and not something we want them to come back and show us. At lower levels it can even be a bit of a deterrent.
2	[F]irst is students feelings and make sure it met their needs; and second, evaluation by the instructor ... Third, was the on-the-job evaluation by the supervisor. They have to evaluate if the training related well to the job and if the person can now do what they were trained for, will it be used, and how can it be improved for the next time. Formally we only do a questionnaire, but informally we talk to people whose opinion we respect.

Trainer	Response
3	What we do in the system now in 99% of the cases we ask did you enjoy the program, and not what they got out of it ... we need to be able to tie the objectives to improved performance. We have not been good at that, in part because we have never been accountable.
4	"Happy sheets" are used for learner satisfaction ... and often follow up meetings with small groups give informal feedback.
5	We use reactionary evaluation right after a program in order to see the effect it had and make changes that may be necessary as well as multi-rater feedback to get an idea how others think you are doing in performance ... The main thing we evaluate is the objective to see that they were met. The next would be the learners through observation and sometimes testing.
6	It is entirely self-evaluation ... [employees] often are much more critical on themselves than the manager is on them. We do not evaluate management training if it takes place outside the organization since it will not be continued for others ... On the job evaluation is only done through the performance review process.
7	[We evaluate] in terms of how [employees] changed ... to see if a change or improvement has happened. We look for an observable change in behaviour.
8	We evaluate only the participant's response to the program. This reactionary evaluation asks about the content, and the facilitator, as well as if the learning would be applied on the job.
9	[Evaluations were] received back then and hardly even looked at. We don't do those any more. They have been redesigned. Now we have an impact evaluation, though it's not a level four evaluation. There are forms to be completed with the person's manager and the participants themselves. We are reviewing what methods of evaluation to use in order to define and quantify the problems, but overall, as a management group, they would not accept testing.
10	We sometimes interview people and look at their skills but not always. The only forms of evaluation we use are the reactionary sheets and things to see if they liked the coffee (sarcastically) and ask them if they learned anything.

Table 18 How trainers evaluate.

Return on investment was being measured by only two respondents (Table 19).

Those not using ROI for measurement, judged success of training on such things

as changed attitudes, feelings and less friction (3 respondents), less accidents, or better performance on the job. The actual measurement of the degree of improvement or the cost-benefit analysis of doing, versus not doing, training was not measured by any respondents.

Trainer	Response
1	ROI is only measured through feelings. We look at quality to see were accidents reduced and quality improved. For some programs we will look at that but not usually for upper management
2	We don't measure ROI but we should. We look for improvement in the group, that they can do the process better than before, that they are more skilled or there is less friction between members of a group so they work better together.
3	[Measuring] return on investment was not formalized. Occasionally we would seek verbal confirmation and look for change in performance by asking the supervisor if he or she saw any positive change. We also will often have people coming back to me saying this was great, it has really helped me do this now or whatever. But it has been totally informal.
4	We do not measure return on investment. The success of training is measured to score how satisfied they were with the training. They [happy sheets and informal meetings] give us a good idea of their attitude about [the training].
5	We crudely look at such things as injury prevention, lost time and things. You can't say what the training impact was, just that it had an effect ... At times, evaluation of management development is looking at a change in behaviour and can be linked back to the number of grievances filed, etc.
6	We measure success not in quantifiable terms of dollars and cents but in terms of promotion and in transfer of technology.
7	Success is measured through the written evaluation, repeated requests for the training and informal feedback or comments from the participants and the supervisors.
8	We then look for ways to measure the return of investment such as reduced errors or complaints ... We look for anything that may be measurable [especially] for expensive programs. Mostly we just get a sense from all people involved including supervisors that a positive change has occurred.

Trainer	Response
9	[Evaluation] is something that is very important to do, but very difficult. It is not impossible, but we have to come up with the right combination and do things the right way so participants understand it and accept it.
10	Return on investment is not done for management training programs but it is for almost everything else.

Table 19 Trainers' measurements of success or return on investment.

Contracting Management Development

Question 40 addressed the issue of contracting of management development.

The common theme to come from this question was that contracting of management development was, for all respondents, common. However, the method of contracting and the reason for contracting differed among different organizations. The responses are illustrated in Table 20. The most important consideration identified by at least six of the respondents regarding contracting was the credibility of the trainer or the training organization. In some cases the contract was let through a call for proposals (3 of ten respondents), but in others the trainers looked for a positive history with the training delivery agency or with the training facilitator him/her self (3 respondents). Respondents looked for cost effectiveness of contracting, and for the flexibility of getting customized training.

Trainer	Response
1	I guess it's [for] the interaction, the facilities, curriculum and the relationship to your objectives, and the methods and locations of instruction. And of course cost efficiency and convenience.
2	We know what they do, how they do it and who they use. That is important to us because we want to have training that is consistent with the organization.
3	[To find] cost effective ways to do things like front line leadership and train the trainer programs to use and keep the resources and skills in house.
4	We base [our decision] on proposals to see if they are cost effective, as well as on the content.
5	[We contract out] to complement what we already have. We look at our needs and requirements, the trainers familiarity with the subject area, the dynamics of what is to be presented, and draw on an advisory base for what to use and how to proceed.
6	We typically look to the colleges and university since we like to go with local resources and need to have the confidence in the credibility of what we will get. We'll tell them what we are looking for, and then work with them in order to ensure that we get what we are looking for.
7	[When we contract out] we have an external call for proposals, we evaluate them and have presentations to see who will best meet the needs and be reasonable in cost as well as somebody who can understand the needs and is sensitive to the environment of change at the time.
8	[We contract out] only if the content and the philosophy of the training supplier is consistent with the organization and with our general scope of management development programs. We select the resources based on our experience with the organization and with the facilitator, their credibility and qualifications, the content, and format of what they will teach.
9	We typically get outlines of what is being delivered and see if it meets the needs we have. We look at the topics to be covered and the timing of the sessions and then assess the training based on that, and on what we know about the trainer and the company.
10	We would not develop the training in-house if it was a one-off training session, it just would not be cost-effective. The other time we would definitely contract out is when the expertise is only found outside the organization. We rely a lot on the feedback we have had if we used the trainer before, then how did it go over, was it successful, was it good, those sorts of things.

Table 20 Trainers' reasons for contracting out management development.

Training Styles

As indicated, only eight of the ten subjects completed the Training Style Inventory. The scoring of that inventory saw six of the subjects rate their most used style as Collaborator. The other two each used different styles, as Pair-of-Hands and Expert. As a group, the score was much higher for the Collaborator style, at almost two-and-one-half times higher score than the other styles. One of the two subjects rated as Novice scored much higher Pair-of-Hands score than any other subject.

The three trainers scoring lowest on the Expert style were also rated as the lowest three in comprehension of instructional design and therefore most likely to be classified as Novice or Avocational. There appeared to be no other correlation between the Training Style Inventory score and the classification of trainer by comprehension and application of instructional design.

Summary of the Data

In comparing the results of the critical incident scenario with the questionnaire

results, the author identified the classification of the each respondent. All trainers had some degree of awareness of the existence of the field of instructional design however, only one of the ten respondents identified the use of all relevant areas of formal instructional design in the critical incident. This respondent also supplied accurate definitions of the terms and was the only respondent to identify both theories and theorists related to instructional design. This trainer was considered to be high in both the theory and application of instructional design. She would be classified as *Professional*. There was one respondent who was unable to supply definitions to several of the terms, was inaccurate in definitions and explanations of instructional design concepts and could offer no detail in the critical incident scenario. This trainer was classified as *Novice*.

The other eight trainers fell somewhere between these two in both application and theoretical comprehension of instructional design. As none of these eight respondents could supply accurate definitions and "talk-the-talk" of instructional design, they could hardly be classified as *Academic*. As a result, they would therefore fall into either the *Novice* or *Avocational* depending upon how well they apply instructional design in a given situation. Only one of the remaining

eight would have been classified as a *Novice*, and in his/her own admission, knew very little about instructional design, but given the strong background in safety training, just had a step-by-step process that worked. This respondent however indicated very little use of instructional design concepts in the critical incident scenario.

The remaining seven trainers, all classified as *Avocational*, varied widely in the application of instructional design, but were all very close in comprehension. There were several who, if given a little knowledge of the instructional design process, would fall into the *Professional* classification. Several of these trainers indicated that they were comfortable in using what they do, but in several instances did not know why they did some steps. They can be successful in situations that they have encountered, but given a new situation, and without the understanding of instructional design could find themselves in above their heads.

Overall, it was clear that the trainers as a group do not use task analysis even when they know what it is and how it should be used. Needs analysis and learner analysis are used superficially at best. Trainers in general do not identify

the characteristics of each individual learner to be trained, and often look more at "wish lists" for training than at actual needs. Evaluation was deemed to be important, but the knowledge of how to conduct evaluation was lacking.

Respondents continually referred to the "happy sheets" as their form of evaluation. Nobody analysed higher level evaluation in the application of the learning and the impact of that learning on the learners and the organization.

CHAPTER FIVE
CONCLUSIONS AND RECOMMENDATIONS

Summary of the Study

This study attempted to determine the awareness, comprehension and application of instructional design among corporate trainers in a selection of the largest firms in Newfoundland and Labrador. Ten subjects were selected by stratified random sample to represent the top 25 employers in the province. They completed a critical incident scenario to determine the application of instructional design in a management development situation; they took part in about a two-hour in-depth, semi-structured interview to determine their comprehension of instructional design; and they completed an inventory of situations to determine their training styles.

The data indicated that these corporate trainers use part of an instructional design methodology, but in most cases do not have the understanding and theoretical basis in formal instructional design to use it completely. Most application is based on things that have been used in the past within the organization, or things the trainer has seen work in the past. There was virtually

no attention paid to learner analysis and evaluation, and very little attention to needs assessment. Trainers espoused the use of needs assessment, learner analysis, and evaluation, but what was actually done is a poor approximation of acceptable application. Most trainers completing the training style inventory do espouse to behave as collaborators within the organization as is recommended and most effective.

Conclusions

The results of this study indicated that the majority of the respondents conducted no real needs analysis, but relied upon the feelings of the learners or their supervisors as to what was needed. This was clearly a weakness for the trainers as it is virtually impossible to guarantee relevance to problems or organizational situations, future application, return on investment and overall benefit to the organization with whom these trainers are employed.

Learner analysis was not employed. Most of these trainers relied upon self-selection of the learners or feelings that the people selected were suitable for the program, not that the program was suitable for the learner needs, styles and

preferences. Task analysis was identified by all respondents as being unsuitable for management development. This tied back to the definition of management development differing from management training in that it did not focus on the skills required in the position.

Evaluation or any other real measure of success of the training programs was not conducted. Evaluations invariably took the form of "smile sheets" or "happy sheets" to identify the satisfaction level of the participants upon completion of a training program. Trainers did not evaluate based on objectives. While two respondents indicated the use of return on investment as a measure of success of training, the application was not a measure of the return on investment, but a feeling that the training was worthwhile. This eliminates the demonstration of a benefit to the organization and justification for training dollars.

Many of the trainers demonstrated some degree of theory in use, but do not have enough theoretical knowledge to adapt well to new situations that could arise. They were primarily Avocational trainers working through a training program without a good understanding of how and why it is done, nor the strengths, weaknesses and benefits. Most were however, identified as using a

collaborative training style of training in the organization. This promotes the shared commitment and knowledge of those involved in the training program.

Recommendations

The following recommendations are made based upon the findings of the study and the conclusions outlined.

1. Trainers should become more familiar with training and instructional design theories and models and must be given the autonomy within the organization to use these.
2. Training should become a planned and systematic activity for strategic advantage, not only a response to wish lists and feelings of a possible need.
3. Trainers should strive for collaborative training relationships for the success of the learners, for their own success, and for the success of the organization.
4. Training departments should carefully identify training needs and plan for the measurement of the results of the training and the impact on the organization.

5. More study should be conducted to analyse what instructional design process is taking place for management development programs and how it is measured in the organization.
6. Further study should take place of the styles of trainers and the perception of these trainers within the organization.

References

- American Society for Training and Development (1988). Basic training for trainers. Alexandria, VA.
- Argyris, C. (1985). Strategy, change and defensive routines. Marshfield, Mass.: Pitman Publishing.
- Argyris, C. (1993). On organizational learning. Cambridge, Mass.: Blackwell Publishing.
- Beckwith, D. (1988). The future of educational technology. Canadian Journal of Educational Communications. 17 (1), 3-20.
- Briggs, L. (Ed.). (1977). Instructional design: principles and applications. Englewood Cliffs, NJ: Educational Technology Publications.
- Britt, B. (1994). The lone trainer. Training and Development. 48 (12), 13-15.
- Brostrom, R. (1979). Training style inventory. In Jones, J.E. & Pfeiffer, J.W. (Eds.). The 1979 handbook for group facilitators. San Diego, CA: University Press.
- Brown, J. & Kennedy, M. (1988) Instructional development: A conceptual approach. A presentation at AMTEC '88 The 18th National Conference on Instructional Technology. Halifax, NS.
- Bruner, J. (1962). The process of education. Cambridge, MA: Harvard University Press.
- Bruner, J. (1966). Toward a theory of instruction. Cambridge, MA: The Belknap Press of Harvard University.
- Brush, D., & Licata, B. (1983). The impact of skills learnability on the effectiveness of managerial training and development. Journal of Management. 9 (1), 27-39.

Burgess, R.G. (1984). In the field: an introduction to field research. London: Allen and Unwin.

Canadian Department of Manpower and Immigration. (1973). Dictionary of canadian educational terms. Ottawa: Government of Canada.

Carnevale, A.P., Gainer, L.J., & Villet, J. (1990). Training in America. San Francisco, CA: Jossey-Bass Publishers.

Feuer, D. & Gerber, B. (1988). Uh-Oh...second thoughts about adult learning theory. Training Magazine 25 (12), 31-39.

Flipczak, B. (1991). A glimpse at the latest training technology. Training Magazine 28 (4), 78.

Gallant, G.M. (1989). A study of instructional development knowledge and competency among teacher-librarians in Newfoundland. Unpublished master's thesis, Memorial University of Newfoundland, St. John's.

Gerber, B. (1986). The Hawthorne effect: Orwell or Buscaglia? Training Magazine 23 (11), 113-114.

Gorman, C. (1993). An ethnographic study of knowledge of instructional development and the instructional planning process used by nurse educators in Newfoundland. Unpublished master's thesis, Memorial University of Newfoundland, St. John's.

Graham, I.D. (1991). An ethnographic study of high school teachers' knowledge and use of instructional development in the province of Newfoundland. Unpublished master's thesis, Memorial University of Newfoundland, St. John's.

Healy, S.R. (1994). A study of instructional development knowledge and use during instructional planning by nurse educators in Newfoundland and Labrador. Unpublished master's thesis, Memorial University of Newfoundland, St. John's.

Hedegard, J.M. (1967). An overview of historical formulations. In L. Siegel (Ed.), Instruction: Some contemporary viewpoints. (pp. 3-23). San Francisco, CA: Chandler Publishing Co.

- Heinich, R. (1970). Technology and the management of instruction. Washington, DC: Association for Education Communications and Technology.
- Heinich, R. (1984). The proper study of educational technology. Educational Communications and Technology Journal. 32 (2), 67-87.
- Heinich, R. (1985). Instructional technology and the structure of education. Educational Communications and Technology Journal. 33 (1), 9-15.
- Knirk, F.G. & Gustafson, K.L. (1986) Instructional technology. New York: Holt, Rinehart, & Winston.
- Logan, R.S. (1982). Instructional Systems Development. New York: Academic Press.
- Lubin & Eddy, (1987). Training theory and practice. In Jones, J.E., & Pfeiffer, J.W. (Eds.). The 1987 handbook for group facilitators. San Diego, CA: University Associates.
- Oberle, J. (1990). Instructional technology. Training Magazine. 27 (96), 69-70.
- Richey, R. (1986). The theoretical and conceptual bases of instructional design. New York: Nichols.
- Robinson, D.G., & Robinson, J.C. (1989). Training for impact. San Francisco, CA: Jossey-Bass Publishers.
- Romiszwski, A.J. (1981). Designing instructional systems. New York: Nichols.
- Rugoff, R. (1979). The training wheel: A simple model for instructional design. In Gordon, J., Zemke, R. & Jones, P. (Eds.) Designing and delivering cost effective training (second edition). Minneapolis, MN: Lakewood Books.
- Schon, D.A. (1983). The reflective practitioner. New York, NY: Basic Books Publishers.
- Shuell, T.J., & Lee, C.Z. (1976). Learning and instruction. Monterey, CA: Brooks/Cole Publishing Company.

Silber, K.H. (1977). Educational technology: Definition and glossary of terms. Washington, DC: Association for Educational Communications and Technology.

Skinner, B.F. (1968). The technology of teaching. New York: Appleton-Century Corp.

Thomey, M.E. (1991). A study of instructional development knowledge and competency among secondary teachers in the Roman Catholic School Board for Humber-St. Barbe and the Deer Lake-St. Barbe South Integrated School District. Unpublished master's thesis, Memorial University of Newfoundland, St. John's.

Tobin, J.M. (1989). A study of instructional development knowledge and competency among primary and elementary teachers in the Roman Catholic School Board for St. John's, Newfoundland. Unpublished master's thesis, Memorial University of Newfoundland, St. John's.

Training Magazine, (1988). Snapshots. 25 (7), 22-26.

Walton, J. (1971). Introduction to education: A substantive discipline. Waltham, MA: Xerox Publishing Company.

Appendix A
TSI Style Contrasts

TSTI STYLE CONTRASTS

Orientation to Teaching-Learning	Behaviorist New behavior can be caused and "shaped" with well-organized structures around the learner.	Structuralist The mind is like a computer; the teacher is the programmer.	Humanist Learning is self-directed discovery. People are natural and unfold like a flower if process doesn't inhibit the process.
Basic Assumptions	Training designers select the desired end behaviors and determine and behaviors and outcomes schedule that present, readily encourage them. They are aware of those goals, ingredients new machinery has much learning fun and thinking unnecessary. Learners often control the speed.	Content properly organized and fed to be bit to learners will be retained in memory. Criterion tests will verify the learning. The teacher's task is to assess while simultaneously entering data — a much-envied skill.	"Anything that can be taught to another is teachable in a consequent" (Progers) Significant learning leads to insight and understanding of the world. Human beings is considered a valid learning goal. Can be very inefficient, time-consuming process.
Key Words and Processes	<ul style="list-style-type: none"> • stimulus response + practice • shaping + prompting + behavior modification + reinforcing • habit formation + reward and punishment • reinforcement + results • generalization + successive approximation + sensitizing • extinction + token economy + mastery 	<ul style="list-style-type: none"> • task analysis + lesson planning + information mapping • chaining + sequencing • memory + audiovisual media • presentation techniques • reinforcement + measuring instruments + objective evaluation 	<ul style="list-style-type: none"> • freedom + individuality • ambiguity + uncertainty • awareness + spontaneity • mutuality + equality + openness • interaction + experiential • experiential learning + experientiality + learning + cooperation + feelings
Interpersonal Style	Supportive emphasis on controlling and practicing the learner and learning outcomes are valued. Process is product centered.	Directive, planning, organization, presentation, and evaluation are featured. Process is teacher centered.	Reflective, authenticity, equality, and acceptance mark relationship. Process is relationship centered.
Strengths	"The Doctor": clear, precise, and deliberate, low risk, careful preparation, emotionless, all the way complete behavior. "The Engineer": trial and error, "The Scientist": systematic, "The Manager": protective, patient, in control.	"The Expert": informative, thorough, certain, systematic; stimulating, good audio-visual aids, all the way complete, "The Leader": powerful, expressive, dynamic, entertaining.	"The Counselor": sensitive, empathic, open, spontaneous, creative, a "mirror" non-evaluative, accepting, non-judgmental, non-directive, interactive, helpful.
Limitations	"The Manipulator": fosters dependence, overprotective, controlling, manipulative "for their own good" + sugar coating. "The Hypocrite": lack of concern for the student's needs or noble sake.	"The Elitist": preoccupied with means, fringe, or structure rather than results, ignores affective variables, ignores individual differences (plans), decontextualizes (black or white) thinking, superior.	"The Fuzzy Thinker": vague directions, abstract, evasive, or personal content, lacks performance criteria, uncoordinated with tools, low, poor feedback, much on treatment mentality.

Source:

Brostrom, R. (1979) The 1979 Handbook for Group Facilitators

Appendix B
Critical Incident Scenario
and
Interview Guide

The Awareness, Comprehension and Application of Instruction Design in Management Development among Large Companies in Newfoundland and Labrador.

Semi-structured Interview Guide

Name: _____

Demographics

1. Education Post Secondary _____

Graduate _____

Specialization _____

Adult Education training _____

Training in ID/Ed Tech _____

2. Employment Present Position _____

Level in Organization _____

Number of years in position _____

Number of years in organization _____

Prior Position(s) _____

Number of employees in training division (org structure)

% of budget on training (how) _____

% on Mgt Training _____

How is amount of training measured? #of days training developed and delivered and contracted outside _____

3. What do you consider management development to be? _____

4. Do you feel there is a difference between management development and management training?
Explain. _____

5. Who typically gets the managerial training in your organization (the stars as a perk to performance or those in most need?)

5b) How is that decision made?

6. How many days of training does each employee get per year, _____
\$ per manager/supervisory? _____

General Information

Instructional Planning Process

7. How do you define the instructional planning process?

8. Describe your planning process for management development.

9. What starting points do you use in the planning process? *activity, content, diagnosis, evaluation, instruction, materials, objectives, organization*

10. What are the benefits to planning?

11. What are the drawbacks?

12. When do you begin the instructional planning process in relation to the training itself?

13. What factors influence planning?

14. How firm are the plans, and what could cause the plan to be revised? How likely is the plan to be revised due to issues unrelated to the training itself.

Instructional Development

Definition

15. How would you define instructional design?

16. Where did you come up with the definition?

17. How would you define curriculum development?

18. What similarities or differences do you see in Instructional Development and Curriculum Development?

19. What theories of Instructional Development are you most familiar with?

Needs Assessment

20. What would you consider to be needs assessment?

21. Do you perform needs assessment for the purpose of management development?
If yes how, if not why not? and what instead.

22. What is your perception of the importance of needs assessments in management development?

Task Analysis

23. How would you define task analysis?
(precise detail and quantifiable terms -- the skills, knowledge, terms, tools, conditions and requirements needed to perform the job)

24. Do you use task analysis in the development of management development programs?
What aspects *(Skills, knowledge, terms, tools, conditions, requirements)*

24 a. Why do you use task analysis?

- determine learning requirements
- establish objectives
- determine course content
- simplify tasks and reduce cost, increase performance in performing task
- develop stronger training programs
- restructure jobs
- provide more accurate job descriptions
- organize work activities
- as part of a performance appraisal
- other?

24 b. How do you conduct task analysis?

- Identify major or critical outputs of the job
- Collect data to record principle tasks
- Break tasks into activities or steps
- Validate the tasks
- Submit tasks for preliminary concurrence
- Choose or design a suitable format for analysis
- Complete the task analysis, record results
- Distribute to management for final review

Objectives

25. What types of objectives do you use in the management development?

Job Specific unit goal learner behavioral instructional teaching

Where do you get the specific objectives?

26. What is your perception of the importance of objectives in the development of training programs?

In your opinion, what are some of the positive aspects?

What are some of the negative aspects?

Learner Analysis

27. Do you define characteristics of your learners for the purpose of management development?

If so, by what methods and characteristics?

age, sex, socioeconomic, reading ability, writing ability, verbal ability, math ability, attention span, content knowledge, experience, maturity, responsibility attitude

If not, why not?

27 b. Do you consider entry level characteristics of managers in the development of instruction?

If so, how? If not why not?

27 c. Do you consider variance in learner characteristics? If so, how, if not why not?

28. What is your perception of the importance of learner analysis in the development of instruction?

Evaluation

29. How do you define evaluation with respect to management development?

30. Do you use evaluation in management development?

- If so, how?

Happy sheets Testing Observation On the Job Return on Investment
pre-post-test 360 multi-rater feedback assessment

- If not, why not? or what is used instead?

- What do you evaluate?

objectives

content

learners

instruction

resources

- How long after the training or development do you conduct the evaluation?

- When do you develop the evaluation plan?

31. Are you familiar with summative evaluation? Explain

Do you use summative evaluation? Why/why not?

32. Are you familiar with formative evaluation? Explain

Do you use formative evaluation? Why/why not?

33. Do you use testing? If so, what type of testing?
criterion referenced norm referenced

If not, why not?

34. What is your perception of the importance of evaluation of training?

35. Do you measure the Return On Investment?
If so how?

If not how to measure success of training?

Instructional Strategies

36. What do you consider in planning instruction?

<i>text</i>	<i>curriculum guides</i>	<i>job description</i>
<i>resources</i>	<i>learning activities</i>	<i>technology</i>
<i>medium</i>	<i>buzz words</i>	<i>wish lists</i>
<i>what the competition is doing</i>		<i>cost</i>
<i>what's available to you</i>		

37. Are you aware of different teaching strategies? Which do you use? Explain

<i>Lecture</i>	<i>discussion groups</i>	<i>demonstration</i>
<i>self study</i>	<i>small group study</i>	<i>research topics</i>
<i>textual study</i>	<i>experimentation</i>	<i>simulation</i>
<i>question and answer</i>	<i>mediation instruction</i>	

38. How do you decide what is best and when?

39. Are you aware of content sequencing?

Do you use content sequencing? If so, what sequencing strategies?

<i>easy to difficult</i>	<i>frequency of use</i>
<i>familiarity</i>	<i>temporal order</i>

40. Do you ever contract training for management development? If no, why not?

If yes, how do you select instructional resources?

Revision, assessment and recycling

41. Are you familiar with instructional revision? Explain

Do you use revision? _____

How? _____

Why? _____

How often or when? _____

What is the role of evaluation in the revision of instruction?

Should instruction be revised? Why/why not?

42. Are you familiar with instructional assessment? Explain.

Do you use assessment? _____

How? _____

Why? _____

How often or when? _____

What is the role of evaluation in the assessment of instruction?

Should instruction be assessed? Why/why not? When?

43. Are you familiar with instructional recycling? Explain.

Do you use recycling? _____

How? _____

Why? _____

How often or when? _____

What is the role of evaluation in the recycling of instruction?

Should instruction be recycled? Why/why not? When?

Appendix C
Training Style Inventory

STYLE INVENTORY

Instructions for completing the style inventory

1. This inventory describes ten situations that commonly occur during implementation of training projects. For each one, you are provided three options from which to select.
2. Read each question, and focus on how your training department now works with your line management in these situations.
3. The term *line management* refers to any line managers with whom the training department might work during a training project.
4. For each situation, you have ten points that you must allocate among the three options provided. For example, if option (a) describes how your training department now works about 60 percent of the time, you should allocate six points to it; if option (b) describes how it works 30 percent of the time, it should be given three points. Option (c) would then have to be given one point, because the points must total ten for all three options.
5. You may distribute these ten points in any manner; a combination of 10-0-0 would be acceptable. Allocate the points to represent **how your training department now works** with line management on training projects, **not how you think it should work**.
6. If you read a situation that you have never experienced, disregard it and move on.
7. Once you have responded to all relevant situations, total the point values in each column at the bottom of the page.

Style Inventory

- | | | | | |
|----|--|---|---|---|
| 1. | When I work with line management on training and development problems, what generally happens is: | A | B | C |
| | a. Management looks to me to develop solutions. | — | — | — |
| | b. Management has its own solutions and expects me to follow its directions. | | | |
| | c. Management and I work together to develop solutions. | | | |
| 2. | In determining the type of training that is needed, what generally happens is: | A | B | C |
| | a. I indicate to line management that a specific type of training is needed. | — | — | — |
| | b. Line management determines the training program that is needed and tells me. | | | |
| | c. Line management and I jointly make decisions about the type of training needed. | | | |
| 3. | In determining the content for a training program: | A | B | C |
| | a. I generally determine the content of the training program. | — | — | — |
| | b. Management knows what content it wants in a training program and tells me. | | | |
| | c. The content is determined through discussions between management and myself. | | | |
| 4. | In working with line management to develop and implement a training program: | A | B | C |
| | a. Disagreements usually do not occur, because my expertise in training and development is recognized. | — | — | — |
| | b. Disagreements usually do not occur, because line management knows what it wants. | | | |
| | c. Disagreements are expected and are resolved by discussion between line management and myself. | | | |

- | | | | | |
|----|--|---|---|---|
| 5. | After it has been determined that a training program is needed, what generally happens is: | A | B | C |
| | a. I proceed to design and implement the training program. | — | — | — |
| | b. Management tells me what it wants in the program and how long the program should be. | | | |
| | c. Design and implementation decisions are made through discussion and agreement between line management and myself. | | | |
| 6. | When I am diagnosing training needs, what generally happens is: | A | B | C |
| | a. I collect data and tell the line manager what the training objectives should be. | — | — | — |
| | b. The line manager tells me what the training objectives should be. | | | |
| | c. We work together to analyze the situation and determine the training objectives. | | | |
| 7. | When a training program is being implemented, what generally happens is: | A | B | C |
| | a. I manage the implementation process alone. | — | — | — |
| | b. The line manager decides how to implement the program and I carry out his or her plan. | | | |
| | c. The line manager and I meet regularly to discuss how the implementation is going and determine the actions to be taken. | | | |
| 8. | When skill transfer appears not to be occurring, what generally happens is: | A | B | C |
| | a. I identify the problems and then take action to solve them. | — | — | — |
| | b. Management identifies the problems and takes action to solve them. | | | |
| | c. Line management and I identify the problems and determine actions to solve them. | | | |

9.	When evaluating the effectiveness of a training program:	A	B	C
a.	I decide on the type of evaluation and do it myself.	—	—	—
b.	Line management decides what it wants evaluated, and I carry out the evaluation.			
c.	Line management and I jointly agree on what items should be evaluated, and I carry out the actions.			
10.	When I work with line management on a training program, what generally happens it:	A	B	C
a.	Collaboration is minimal because my expertise warrants that I determine what needs to be done.	—	—	—
b.	Collaboration is minimal because line management determines what needs to be done.			
c.	There is collaboration between line management and myself in determining what needs to be done.			
COLUMN TOTALS		A	B	C
		—	—	—

Appendix D
List of 25 Largest Employers
in Newfoundland and Labrador

NAME**NUMBER OF EMPLOYEES**

Fishery Products International	3900
Memorial University of Newfoundland	3672
PCL Acker Stord Steen and Becker	3215
National Sea Products	3167
Hibernia Management Development Co.	2900
General Hospital Corporation	2656
Newfoundland Telephone	1752
Iron Ore Company of Canada	1554
NF and Lab Hydro	1392
Marine Atlantic	1210
Western Memorial Hospital	1348
City of St. John's	1292
Corner Brook Pulp and Paper	1145
St. Clare's Mercy Hospital	1121
Canada Post Corporation	1166
Canadian Helicopters	1090
Grace General Hospital	950
Dr. Charles A. Janeway Child Health Ctr.	825
NF Light and Power	820
Bank of Nova Scotia	820
Waterford Hospital	820
Cabot College of Applied Arts and Tech.	750
Hoyles-Escasoni Complex	727
Grenfell Regional Health Services	680
Hickman Group of Companies	565

Source: St. John's Board of Trade -- November 8, 1995

Appendix E
Participant and Organizational Consent Forms

29 Fleet St.
Mount Pearl, NF
A1N 3Y4

I am a graduate student in the Faculty of Education at Memorial University under the supervision of Dr. Mary Kennedy. I will be interviewing training managers and human resource representatives responsible for training over the summer to investigate the awareness, comprehension and application of instructional design in management development among Newfoundland companies. I am requesting your organization's participation in this study.

Participation will consist of the representative responsible for training meeting with me three times. He/she will be asked questions regarding awareness and comprehension of formal instructional design methodology and the application of this methodology in your organization's management development. In all, the time commitment will be less than two hours. With participant consent, the meetings will be audiotaped with the tape erased upon completion of the research. The participant will have the opportunity to view the transcript when completed. The meeting protocol is as follows:

Meeting 1 (approximately 30 minutes) -- Interview and completion of brief critical incident scenario.

Meeting 2 (approximately 1 hour) -- Semi-structured interview regarding the awareness, comprehension and application of instructional design in management development.

Meeting 3 (approximately 30 minutes) -- Completion of Training Style Questionnaire.

All information gathered in this study is strictly confidential and at no time will individuals or organizations be identified. Participation is voluntary, and the representative has the freedom to withdraw from the study at any time, or to refuse to answer any question without prejudice. This study has received the approval of the Faculty of Education's Ethics Review Committee. At your request, the results of my research will be made available to your organization upon completion.

If you agree to your organization's participation in this study please sign the attached Organizational Consent Form, keep one copy and return the other copy to me at the address listed below in the postage paid return envelope.

Should you have any questions or concerns, please feel free to contact me at 737-7977 at work or 368-7140 after regular business hours. If at any time you wish to speak with a resource person not associated with the study, please contact Dr. Stephen Norris, Acting Associate Dean, Research and Development with the Faculty of Education at 737-8693.

I would appreciate your returning this form to me by mail or fax to 737-7999 by August 30, 1995. Thank you for your consideration of this request.

Respectfully,

William J. Morrissey

PARTICIPANT CONSENT FORM

I _____ hereby consent to participate in a study of the awareness, comprehension and application of instructional design in management development programs in Newfoundland and Labrador being undertaken by William J. Morrissey. I understand that participation is entirely voluntary and that I may withdraw from participation at any time, or refuse to answer any questions without prejudice. All information is strictly confidential and no individual or organization will be identified.

Signature

Date

ORGANIZATIONAL CONSENT FORM

I _____ hereby give consent, for a representative of my organization _____ to participate in a study of the awareness, comprehension and application of instructional design in management development programs in Newfoundland and Labrador being undertaken by William J. Morrissey. I understand that participation is entirely voluntary and that the interviewee may withdraw from participation at any time, or refuse to answer any questions without prejudice. All information is strictly confidential and no individual or organization will be identified.

Position

Signature

Date



