THE EFFECTS OF TRAINING ON JOB PERFORMANCE:

A STUDY OF THE FACTORS AFFECTING THE LEARNING TRANSFER PROCESS

by

Carole Ann Algranti

' A Thesis

Submitted to

The Faculty of Graduate Studies and Research

McGill University, Montreal, Quebec

In Partial Fulfillment

of the Requirements for the Degree of

Master of Arts

in

Administration and Policy Studies in Education

THE EFFECTS OF TRAINING ON JOB PERFORMANCE: A STUDY OF THE FACTORS AFFECTING THE LEARNING TRANSFER PROCESS

ABSTRACT

This study examines the participants' perception of the transfer of learning from a training course to job performance and looks at some of the factors which influence the transfer process. The Employment and Immigration Canada training program used in this study is a two week competency-based course in the area of employer services; 62 participants composed the sample. Data collected from three measurement instruments administered before, at the end of and after training were statistically analyzed. The data revealed that the participants acquired new skill's and new knowledge. Those same participants, furthermore, were experimenting with the new learning on the job. Participant characteristics and their perceptions of training bear little direct relationship to transfer. The learning transfer process is enhanced if the learning is job related and if the supervisor supports and encourages the use of the new ideas and techniques. The work environment, therefore, is made up of inhibiting as well as facilitating elements that affect the application of the new approach. The organization through the work environment and the supervisor creates the conditions in which participants can apply what they have learned.

RESUMÉ

Cette étude porte sur le transfert des apprentissages acquis pendant un cours de formation en milieu de travail à partir de la perception qu'en ont les participants/es. De plus, l'étude fait état des facteurs susceptibles d'affecter leur mise en application. Le programme de formation qui fait l'objet de cette recherche est un cours axé sur les compétences dans le domaine des services aux entreprises et dispensé par Emploi et Immigration Canada. Au total, 62 participants/es composent l'échantillon. Trois instruments de meture administrés avant, pendant et après le cours permettent d'établir les données statistiques. Celles-ci confirment que les participants/es font l'acquisition de nouvelles connaissances et développent pendant le cours de nouvelles habiletés qu'ils appliquent ensuite dans leur contexte de travail. Cependant, les caractéristiques des participants/es et leur perception du cours de formation ne peuvent être considérés comme facteurs déterminants reliés aux conditions de transfert. est évident que le processus de transfert a lieu seulement si la formation est pertinente en matière de travail et si l'application de nouvelles idées et stratégies est encouragée par le supérieur immédiat. Aussi, le contexte et les conditions de travail tant menaçantes que favorables affectent de diverses façons la mise en application des nouvelles connaissances acquises en formation. Une atmosphère saine de travail accompagnée d'une attitude positive de la part d'un supérieur constituent des éléments favorisant un transfert de nouvelles connaissances et d'habiletés en contexte de travail.

TABLE OF CONTENTS

	TITL	<u>E</u>	PAGE	
	ABST	RACT	i	
	RESU	ME	ii	
	TABLE OF CONTENTS LIST OF FIGURES LIST OF TABLES LIST OF APPENDICES ACKNOWLEDGEMENTS O INTRODUCTION 1.1 TRAINING ISSUES 1.2 EMPLOYMENT AND IMMIGRATION CANADA 1.3 THE TRAINING PROGRAM 1.4 STATEMENT OF THE PROBLEM O REVIEW OF RESEARCH 2.1 FRAMEWORK			
	LIST	OF FIGURES	v.i_	
	LIST OF TABLES			
	LIST OF APPENDICES			
1.0	INTR	ODUCTION	1	
			1	
	1.2	EMPLOYMENT AND IMMIGRATION CANADA	5	
	1.3		6	
	1.4	STATEMENT OF THE PROBLEM	11	
		ч		
2.0	REVI	EW OF RESEARCH	13	
	2.1	FRAMEWORK	13	
	2.2	WHAT IS TRANSFER?	15	
	2.3	FACTORS WHICH INFLUENCE TRANSFER	16	
		2.3.1 Characteristics of The Learner	16	
		2.3.2 Role of The Supervisor	18	
		2.3.3 Work Environment	19	
•		2.3.4 Training Objectives	20	
	2.4	TECHNIQUES TO TRANSFER TRAINING	21 ,	
	2.5	TRAINING EVALUATION	22	
	2.6	SUMMARY	25	
	2.7	RESEARCH QUESTIONS	26	

TABLE OF CONTENTS Cont'd

<u>T</u>	ITLE		PAGE
3.0	METH	IODOLOGY	30
	3.1	INTRODUCTION	30
	3.2	SOURCES OF DATA	31
	3.3	PROCEDURES	32
	3.4	SAMPLE	34
	3.5	INSTRUMENTS	37
•		3.5.1 Participant Characteristics	37
		3.5.1.1 Motivation	37
		3.5.1.2 Background Characteristics	43
1		3.5.2 Participants' Perceptions of Training	43
	1)' .	3.5.3 Transfer of Training	45
	3.6	ANALYSIS	48
	3.7	LIMITATIONS	48
4.0	RESU	LTS AND DISCUSSION	50
	4.1	INTRODUCTION	50
	4.2	OUTCOMES OF TRAINING	50
	4.3	TRANSFER OF TRAINING TO THE JOB	51
	4.4	FACTORS WHICH ENHANCE TRANSFER	60
	ď	4.4.1 Learner Characteristics	60
		4.4.1.1 Motivation	60
		4.4.1.2 Age	62
		4.4.1.3 Education	62
		4.4.1.4 Experience	62
	-	4.4.1.5 Previous training	62
		4.4.2 Perceptions of Training	63
		4.4.3 The Role of The Supervisor and The Work Environment	65
	4.5	OTHER FACTORS WHICH ENHANCE TRANSFER	68

TABLE OF CONTENTS Cont'd

	TITLE	بالحر _ي ة	PAGE
	5.0 CONCLUSIONS AND RECOMMANDATIONS	• • • • • • • • • •	69
,	5.1 INTRODUCTION	• • • • • • • • • •	69
	5.2 CONCLUSIONS		69
	5.3 POLICY IMPLICATIONS	•••••	72
	5.4 SUGGESTIONS FOR FURTHER STUDY	•••••	75
	REFERENCES	,	, 76
		,	
	APPENDICES	• • • • • • • • •	79

LIST OF FIGURES

		•	PAGE
Figure	1.1	A SYSTEMATIC APPROACH TO TRAINING	2
Figure	1.2	A CONCEPTUAL FRAMEWORK: EMPLOYER SERVICES TRAINING - COMPONENT A	8
Figure	2.1	A MODEL OF A TRAINING PROCESS	14
Figure	2.2	INTERSECTING FACTORS WHICH INFLUENCE TRANSFER	17
Figure	2.3	AN EVALUATION MATRIX SHOWING THE FOUR LEVELS OF EVALUATION	27
Figure	2.4 2	SUMMARY OF LITERATURE REVIEWED	28
Figure	3.1	TRAINING TIMEFRAMES FOR RESEARCH	33
Figure		FACTORS AFFECTING THE TRAINING TRANSFER PROCESS	73

LIST OF TABLES

	•	PAGE
Table 3.1	RESEARCH PARTICIPANTS BY DISTRICT	35
Table 3.2	QUESTIONNAIRE DISTRIBUTION AND RESPONSE RATE	36
Table 3.3	PARTICIPANT BACKGROUND CHARACTERISTIC:	38
Table 3.4	PARTICIPANT BACKGROUND CHARACTERISTIC: EDUCATION	39
Table-3.5	PARTICIPANT BACKGROUND CHARACTERISTIC: EXPERIENCE	40
Table 3.6	PARTICIPANT BACKGROUND CHARACTERISTIC: PREVIOUS TRAINING	41
Table 3.7	RESULTS ON PARTICIPANT MOTIVATION QUESTIONNAIRE	42,
Table 3.8	ITEMS AND FACTOR LOADINGS OF PARTICIPANT MOTIVATION ON ONE FACTOR	44
Table 3.9	ITEMS AND ROTATED FACTOR LOADINGS OF PARTICIPANT PERCEPTIONS OF TRAINING ON SIX FACTORS	46
Table 4.1	TRANSFER OF TRAINING ITEMS RANKED IN ORDER OF IMPORTANCE	53

LIST OF TABLES Cont'd

		PAGE
	ITEMS AND ROTATED FACTOR LOADINGS OF THE TRANSFER OF TRAINING ITEMS ON SIX FACTORS	56
Table 4.3	IMPACT OF TRAINING ITEMS RANKED IN ORDER OF IMPORTANCE	58
Table 4.4	A CORRELATION MATRIX OF 17 VARIABLES	61
Table 4.5	PARTICIPANTS' RATING OF THE TRAINING	64
Table 4.6	FACTORS FACILITATING TRANSFER	66

LIST OF APPENDICES

			PAGE
Appendix	I	PILOT STUDY QUESTIONNAIRE	79
Appendix	II	PARTICIPANT MOTIVATION QUESTIONNAIRE	85
Appendix ,	III	FACTOR ANALYSIS - MOTIVATION	87
Appendix	IV '	PARTICIPANT PERCEPTIONS OF TRAINING QUESTIONNAIRE	89
Appendix	٧	FACTOR ANALYSIS PERCEPTIONS OF TRAINING	95
Appendix	VI	TRANSFER OF TRAINING QUESTIONNAIRE	97
Appendix	VII	TRANSFER OF TRAINING ITEMS IN PERCENTAGE	107
Appendix	VIII	FACTOR ANALYSIS - TRANSFER OF TRAINING	109
Appendix	IX	ANOVA - AGE WITH INTERPERSONAL	111
Appendix	X	ANOVA - AGE WITH SKILLS	114
Appendix	ΧI	ANOVA - TRAINING WITH KNOWLEDGE	117
Appendix	XII	PARTICIPANT PERCEPTIONS OF THE TRAINING PROCESS	120
Appendix	XIII	PARTICIPANT PERCEPTIONS OF THE EXTENT TO WHICH TRAINING MET THEIR NEEDS	122
Appendix	VIV	PARTICIPANT PERCEPTIONS OF TRAINING OUTCOMES	123

ACKNOWLEDGEMENTS

I owe special thanks to several people who made it possible for me to complete this thesis: Ino, my husband, for his understanding and support throughout this academic endeavor; Gary Anderson, my advisor, for his ideas, inspiration, availability and counsel; Raymond Carlos and Rejean Tardif, my directors (CEIC), without whose sustained interest and belief in the training program, I never would have gotten the time and access I needed; Jacques Mignault, my work colleague, for his word processing computer savvy; Susan Rona, my friend and cheerleader, for always being just a phone call away.

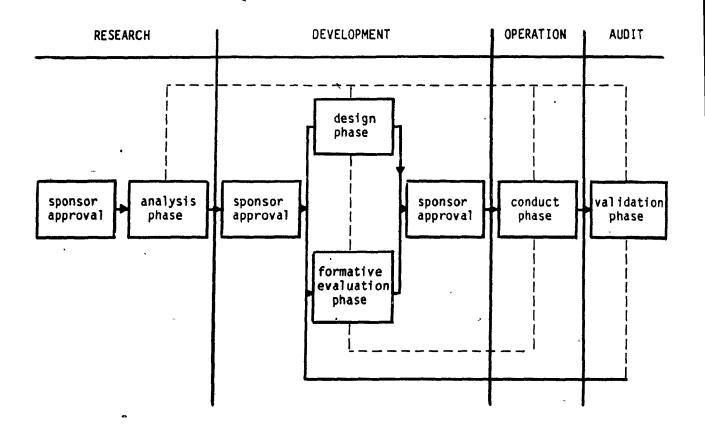
1.0 INTRODUCTION

1.1 TRAINING ISSUES

Public sector staff training and development faces the same challenge as other employment training: how to ensure the transfer of the newly acquired skills and knowledge to the work environment. Training in government departments is an expensive process and is critical to organizational goals and success. Therefore, the effects of training on performance is an issue which merits attention. Transfer of learning from the classroom to job performance – even under the best of circumstances, is extremely difficult. Under the severe pressures and constraints in the work environment, trainees often return to a situation that is not at all conducive to any change in behavior less so to experimentation. What happens after training is more critical than what happens during training. No matter how well the what is taught, the crux of the issue is how the new learning is integrated into the job performance and how changes in behavior resulting from the training program can be measured. Any training course is realing only the start-of the performance improvement process.

The Public Service Commission of Canada (1982), recognizing the need for a rational framework for the management and delivery of training activities, proposed a systematic approach to training. This prototype system is basically the planned grouping and sequencing of training research, development, delivery and evaluation activities in a logical order. Figure 1.1 shows this systematic approach to training. The analysis phase researches the need and finds out what training is needed. The design phase develops the training. The conduct phase implements the course at the worksite and/or in a classroom. The evaluation phase assesses the learning as well as the efficiency of the delivery. The validation phase assures that the learning relates to the job and that it is transferred to the job by assessing the maintenance of behavior, the work performance and the understanding of the work environment.

FIGURE 1.1
A SYSTEMATIC APPROACH TO TRAINING



= FEEDBACK

= ACTIVITY PATH

The implicit need to create conditions in which trainees can apply the learning they acquire on a course to their work situation is an integral part of this system. Despite the importance of the subject, very little empirical research or practical experimentation has been reported on this topic. Most evaluation research has been carried out on the course itself. Participants have been questioned on course content, the teaching methods used, the course design and so on. In other words, the focus is most often on how the trainees react to and feel about the training experience; the course is treated as an end in itself. Another area of evaluation research that has received attention is that of participant learning. Testing the acquisition of knowledge using precise measurement tools is built into some training programs. Results of knowledge-gain testing is used to provide evidence of training effectiveness.

Since training is the first step in the process of producing job performance change, the ultimate goal of training is changing on-the-job performance. When appraising the effects of training as shown in subsequent modified behavior on the job, we are looking for:

- 1) the transfer of instruction into changed behavior and attitudes on the job;
- 2) the extent and duration of such change;
- whether the changes are positive, contributing to efficiency, productivity, and employee satisfaction;
- 4) whether progress has been made in meeting the specific objectives of the training.

One issue, therefore, in analyzing transfer is the issue of measurement itself. That means measuring change in behavior and determining if changes did occur as a result of training. Many factors may affect results and it may not be possible to isolate the effect that is caused by the training program. The actual timing of the measuring is also an issue. For example, if the data collecting instruments are administered only at the end of training or later, there is no evidence that graduates wouldn't have

responded in the same way prior to training. If the instruments are administered to non-trainees, supervisors for example, then there is no evidence about the extent to which results are due to training. In addition, these non-trainees certainly can't provide information about all aspects of course outcomes. If the instrument is administered before and after training, responses to the second administration may be affected by the first. If there are control and experimental groups then it is difficult to randomly assign groups to treatment or to match groups well enough to be sure that results are due to training efforts and not to differences between groups.

Another issue in analysing training transfer is that of measuring performance on the job and impact on the organization. The question here is what measures to use to link training outcomes to performance and impact factors. Twenty years ago, Catalenello and Kirkpatrick (1968) reported the results of a research study to determine and analyze techniques being used by business, industry and government in the evaluation of their training programs. concluded that evaluation research had to take a much broader and more organizationally oriented perspective. In other words, the time had come for training departments to move beyond measuring only participant reaction to training into the areas of measuring behavior change and the impact on the organization as a whole. Today there is still a need to understand not only what changes in job behavior result from the training program but also how and under what conditions learning is transferred by the trainee from the classroom to the work situation. It is also imperative to examine the tangible results of the training program and its impact on the organization in terms of typical indicators of organizational performance, such as productivity, efficiency, quality etc. Since Aptitude Treatment Interaction studies in learning environments seek to understand when, how, and why different persons benefit from different kinds of instruction, it is necessary, therefore, to look at the learner and at the organizational context in which the new learning will be tried out. Some of the factors then, which might influence the amount of learning a course participant would transfer are the characteristics and the motivational level of the learner, the working environment and ultimately, the course itself.

1.2 EMPLOYMENT AND IMMIGRATION CANADA

The organizational context selected by this researcher to investigate the various aspects of the learning transfer process is that of Employment and Immigration Canada (EIC), a federal government department. First, some background information about EIC. EIC is made up of the Canada Employment and Immigration Commission (CEIC) and the Department of Employment and Immigration which were established under the 1947 Employment and Immigration Reorganization Act. The Commission is responsible for all employment, unemployment insurance and immigration programs. The Department consists of Public Affairs and Strategic Policy and Planning divisions.

EIC, in co-operation with the public and private sectors, has two basic aims:

- to develop and apply a framework of policies and programs necessary for the efficient functioning of the Canadian labor market;
- to develop and apply a framework of policies and programs in the area of immigration.

The philosophy of management is built around the concept of quality of service for its clients and the concept of quality of working life for all its employees. This implies that EIC's clients are its raison d'être, that the staff is EIC's most precious resource and that an effective internal and external communication system is essential to EIC's quality of service delivery. A national administration located in Ottawa and ten regional administrations located in the ten provinces make up EIC. The Quebec region, the region used in this study, administers some 6,787 employees, five districts and over 120 Canada Employment Centers.

To date, EIC has not undertaken any systematic, rigorous evaluation of its staff training and development programs in terms of their impact on the trainees' job performance. While participant reaction evaluation is built into most EIC training programs, this information yields opinions of

training as a whole or of specific features of training. However, why a person liked or disliked a program may have little to do with the ultimate impact of the training on the organization. Some EIC training programs, such as the one used in this study, go one step further and evaluate the degree to which trainees demonstrate that they learned the knowledge or skills intended in the course objectives. Good results indicate that learning, which provides the potential for changed performance, has occurred, but nothing guarantees that it will happen. Personal and organizational factors may prevent this new knowledge and these new skills from being utilized to the fullest.

This researcher, a regional CEIC business consultant, administers the training program to be used in the investigation of the aspects of learning transfer. In this sense, the organizational environment and the program are the vehicles which will enable this researcher to study the transfer of training. Two reasons to validate training results are to justify conducting training programs and to measure their worth. Hopefully, the essence and results of this study will enhance the credibility of a training program and justify its value. Another important spinoff will be to convey the message to program participants that CEIC is interested in seeing results, that it is going to measure job performance change and that it wants to have them learn from the training program.

1.3 THE TRAINING PROGRAM

The training program used in this study was a two week competency-based course in the area of employer services. The purpose of this program, implemented in October 1986, was threefold: to enable employment counsellors to develop new skills; to apply current skills and expand on abilities; to share information about changing goals, strategies, roles and responsibilities. The introductory course, entitled "Employer Services Training, Component A" was the first of a series of five courses in this field of activity. The second course, ready for implementation in September 1988, focuses on marketing and quality of service. The remaining three

courses, still to be designed, will be more specialized and will concentrate on specific areas such as human resource planning, labor-market information and labor exchange.

The program, Component A, was designed for employment counsellors working in Canada Employment Centers and who are involved in the area of employer services. The emphasis in this program is on learning, developing and applying knowledge and skills. It was designed with the expectation that with the acquisition of this learning, participant confidence would increase and participant perspective on the organization would be broadened. The expected result was enhanced confidence and, therefore, a better performance level when dealing with employers. The program is divided into ten modules: eight are obligatory, two are optional. Of the eight obligatory modules, four deal with skill development and four deal with knowledge development. The two optional modules center around stress management and the search for excellence. Figure 1.2 is a conceptual framework which illustrates the program's philosophy and content.

The following are condensed content items that are addressed in the Component A training program: \wp

1. Overview of CEIC

- . mission, objectives and standards
- . revitalization
- counsellor's role

2. Labor Market Information

- supply and demand as it relates to the labor market
- . internal and external sources and types of labor market information
- . employer data files
- targeting plan

FIGURE 1.2: A CONCEPTUAL FRAMEWORK: HUMAN MEDIA RESOURCE EMPLOYER SERVICES TRAINING PLANNING CEIC OVERVIEW COMPONENT A **SUPERVISOR EMPLOYER** LABOR CONTACTS **EXCHANGE** Ε **EMPLOYER EMPLOYMENT** R services LABOR MARKET **COUNSELLORS** C ∞ INFORMATION Ţ programs I 0 PROBLEM SOLVING WRITING/TIME SKILLS MANAGEMENT SKILLS **PEERS** WORKER NEGOTIATING CLIENT INTERVIEWING COMMUNICATION In their day to day activities, employent counsellors interact with the worker-client, their peers, the employers, their supervisors **INTERPERSONAL** and the media. In order to achieve this they **RELATIONS** must have skills and knowledge.

3. Labor Exchange

- . hiring practices and procedures
- . job requirements
- . recruitment
- . assessment/selection methods and systems

4. Kuman Resources Planning and Development

- . the basis of human resources planning
- training and developing human resources
- . employee motivation, satisfaction and morale

5. Employer Contacts - Marketing

- . marketing a service
- . preparing a marketing plan
- planning and evaluating employer contacts

6. Other

- . communication
- . negotiation
- . interviewing
- problem solving
- . time management
- . stress management

Because this training is based on the application of knowledge and skills, the exercises built into the modules are the single most important factor in producing a dynamic learning experience. Exercises, progressing in intensity and degree of difficulty, take a number of forms ranging from "unstructured" discussions through role plays, in-basket, and case studies to full simulation.

The literature emphasizes that the success of a training program depends on the reinforcement and encouragement the participants receive when they return to work. It was necessary, therefore, to elicit support and committment from all levels of management throughout the organization. Communication was necessary to translate goals into units of concrete action; the message had to be clear, meaningful and well delivered. The challenge was to make management realize that the training was just too important to be left solely to the trainers. Marketing strategies included senior management, local managers and supervisors. All means of communication were used from meetings, special presentations, and audio cassettes to booklets, memos, and newspaper articles. Most managers and supervisors had an opportunity to overview the system, to discuss barriers and benefits and to discuss training schedules, program content, resources and implementation. The hope was that if they felt close to the training they would assume responsibility for working with staff.

Each of the following conditions have been critical to the training process:

Support

The program was introduced to and supported by top management of the national and regional organization.

Perceived Need

. The organization came to its own conclusion that it needed the training.

Scheduling 5 cheduling

. The course runs for ten consecutive working days.

Location

. The course takes place off-site.

Pre-course Preparation

- Training guide booklets for participants and supervisors are distributed.
- . A pre-course knowledge test is administered to all participants.

Evaluation

. At course end, learning is measured using uniform, validated tools.

Suggestions

 Suggestions for on the job application are provided and action plans are included.

This program was conscientiously selected by the researcher because it is new, it needed research, its content deals with personal judgment and because all the elements of a good training program are in place.

1.4 STATEMENT OF THE PROBLEM

The purpose of this study is to examine the effects of a training program on the subsequent performance of operational tasks. This study goes beyond the course itself, the content, the teaching methods used in presenting the subject matter, the course design and so on. It traces the transfer of learning from the course to the job, and offers an analysis of the factors which influence transfer.

The characteristics of the participants and their ability to comprehend and experiment with the new learning are examined as are the motivational factors which influence the transfer of learning. It was expected that the value placed on the course and the learning gained by the participants, as well as the encouragement offered in the workplace would affect the participants' perceptions and attitudes in the matter of learning transfer. The work environment and its influence on learning transfer are also studied. The job of identifying some of the organizational elements that appear to inhibit or encourage the transfer of training is both an important and difficult one.

The question which is particularly difficult to answer and which this study addresses is what difference if any did training make back on the job? Since the aim of job-related training is to improve performance on the job,

transfer failure obviously defeats the purpose. When trainees return to their jobs after participating in a training program, how do we know whether or not they are doing anything differently, or anything better?

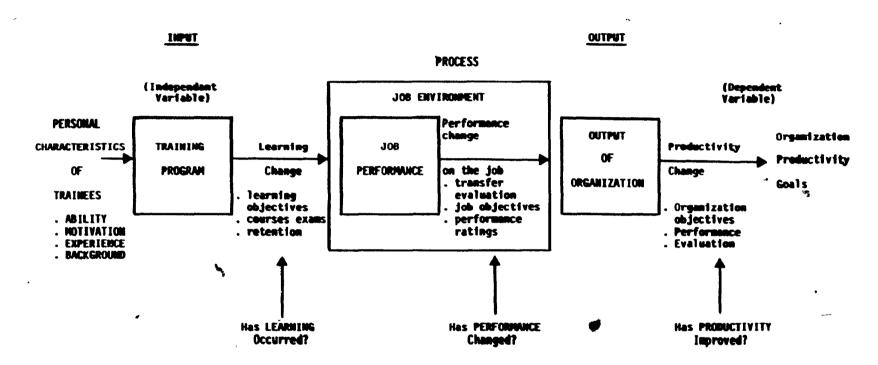
2.0 REVIEW OF RESEARCH

2.1 FRAMEWORK

The review of literature was organized around the concept of transfer of learning or as is often the case, transfer failure and the factors which might differentiate those who attempt to transfer their learning to the job from those who do not. It also encompassed the concept of evaluation of training programs because training can and should be evaluated. The conceptual framework of this review is illustrated in Figure 2.1, a model adapted from Azevedo and Patrick (1978). This literature review has several major problems and limitations. On the one hand, a reliable source, such as ERIC, using descriptors such as transfer of training, adults and job factors, turned up few references that were pertinent to the subject. On the other hand, the author is aware of considerable research which bears on the problem. However, the results of practical experiences in the emerging technology of job performance change belong to the realm of carefully guarded, unpublished corporate records and therefore, are unavailable to the academic researcher. In addition, many companies already collect the data needed to evaluate training; they just don't recognize the evaluative potential of those data. A search of the Business Periodicals Index yielded most of the literature that was reviewed.

Although corporate training itself is not a recent phenomenon, the question of evaluating job performance change on the job is. Research relating to this area as well as to that of behavior change on the job is sparse and is not found in educational publications but rather in journals and books which deal with areas such as human resources management, training and development, organizational behavior and development. Most of the topic-related literature tends to concentrate on reinforcement techniques designed to ensure transfer of learning to the workplace. In studies and reviews of studies that measure transfer of training, emphasis is placed on the procedures that accomplish transfer and the categorization of these procedures. Francis Mechner (1978) and many others who write in training journals point out that "the training field is not characterized by high

FIGURE 2.1:
A MODEL OF A TRAINING PROCESS



- 14

degrees of accountability or concern for job performance change" (p. 110). Those writers who are concerned with evaluating training only speculate as to the elements which affect the implementation of training to the job.

2.2 WHAT IS TRANSFER?

In the field of training, the search continues for a better understanding of what is involved in the "transfer of learning". The discussions are many and, at times, conflicting views and research findings are reported. For instance, it was difficult to find agreement about how to define "transfer of learning" or "transfer of training". Georgenson (1982) defines transfer as "the degree to which an individual uses the knowledge and skills learned in the classroom on the job in an effective and continuous manner" (p. 75).

Zemke and Gunkler (1985) indicate that some researchers seek to restrict the meaning of transfer to something like "response generalization" or, then again, refer only to the effects of prior learning on learning something new. They assume that what is of primary concern to trainers is the effects of training on performance, therefore, they define transfer of training as: "the effects of training on subsequent performance of an operational task" (p. 49). They concede that although the quality of training plays a major role in how much transfer of training occurs, they go much further than other authors and focus on activities that could help improve the subsequent performance of operational tasks. For the purposes of this study, the transfer of training refers to a process which involves both the ability to apply what has been learned and the possibility of using it in the workplace.

There are several ways to measure the impact of training on actual job performance, namely, measuring both process and results or results only. This study focuses on the trainees' perception of results; what was learned, what was transferred and the factors that facilitated or inhibited the transfer of training.

2.3 FACTORS WHICH INFLUENCE TRANSFER

Thirty years ago, Katz (1956) identified five basic requirements which must exist in a transition between learning and changes in job behavior. They are:

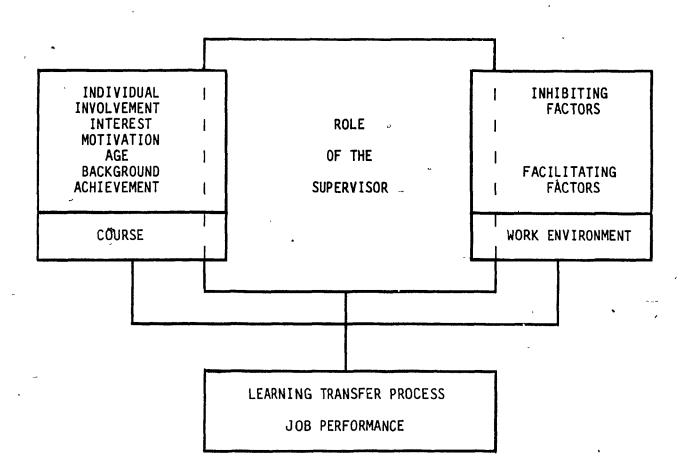
- . a desire to improve
- . a recognition of one's own weakness
- . a permissive work climate
- assistance from someone interested and skilled
- . the opportunity to try out new ideas

Since then, other studies have identified additional factors which may facilitate or inhibit transfer. For purposes of this review, these factors are categorized under four main headings: characteristics of the learner, the role of the supervisor, the work environment, the role of training objectives and techniques. These four topics are related to how they may influence transfer of training to the workplace. Figure 2.2 illustrates the intersection of these main factors which affect the transfer of training on job performance.

2.3.1 CHARACTERISTICS OF THE LEARNER

Since, according to Michalak (1981), training has two phases, acquisition and maintenance of behavior, it is necessary to look at the learner to understand better how learning is transferred by the learner from the course to the workplace. While many studies have related background characteristics to learning within a course, research offers very little information on the relationship of transfer to what a learner brings to the course setting. Does age, educational background and motivation to use acquired learning on the job, influence the transfer process? Huczynski and Lewis (1980) refer to the learner's ability to understand new information, to experiment with the new learning, the learner's motivation and attitude to the course as factors in the transfer process. They conclude that the personal characteristics of the participant (i.e. the ability to comprehend

FIGURE 2.2:
INTERSECTING FACTORS WHICH INFLUENCE TRANSFER



and the skill to experiment, and the motivation to transfer the new learning) are factors which influence the amount of learning a course participant will transfer.

2.3.2 ROLE OF THE SUPERVISOR

Training specialists, (Georgenson, 1982; Hoffman, 1983; Trost, 1985) who are concerned with obtaining the maximum amount of training transferability, agree that for training to be most effective both supervisors and managers should be responsible for ensuring that training is being used on the job. They refer to managers or supervisors as reinforcers, as coaches, as models, as transfer agents. Between learning and application there is a gap which must be bridged. Bridging this gap is difficult because in the classroom the conditions are conducive, however, in the workplace, the realities are harsh and imperfect. In this context, Lippert (1983) and Stark (1986) refer to the immediate supervisor as the person who must take the trainee in tow and act as the bridging agent. This review picked up things or methods that different levels of management can do or apply to increase the probability of transfer. Remedies and advice were abundant, but empirical research results were few.

Broad (1982) found that respondents in her research study tended to report five general categories of important management actions:

- . upper management involvement
- pre-training preparation
- support during training
- job linkage
- . follow-up

Managers, unfortunately, were considered remiss at providing job-linkage and follow-up activities. Zenger and Hargis (1982) report that when five organizations evaluated their supervisory training programs, it was found that the more management was involved the greater was the participant's behavior change. Data from the empirical study conducted by Huczynski and

Lewis (1980) showed that management style and attitudes of the trainees' superior were the single most important factor in training transfer. Forty-eight percent of the experimentors had pre-course discussions with their bosses. Transfer attempts were more likely to be successful where the boss supported the new learning and allowed experimentation with the new ideas. Michalak and Yager (1979) agree with other researchers that positive reinforcement from immediate supervisors is the most powerful transfer and maintenance system.

The one dissenting voice in all that has been reviewed on the role of the supervisor in transfer of training comes from Kent (1982) who questions the utility of one's boss to reinforce on-the-job skills. As an alternative, he suggests using the student as a reinforcing agent. The use of self-monitoring and self-reinforcement encourages trainees to be in charge of their learning process and to be the origin of their behavior change. Ricks (1979), although not minimizing the importance of a work environment where new performance skills are recognized and rewarded, faces the fact that in reality, managers can be uninformed and indifferent. He puts forth self-direction as the key to training people for survival in the post-training environment. His study illustrates "that training is not something done to people" by trainers or management but "is something done by the individuals..." (p. 25).

2.3.3 WORK ENVIRONMENT "

Nothing will endanger performance improvement like the lack of opportunity to use the newly learned skills on the job. Unfortunately much existing training is done without adequate concern for immediate applicability on the job. The work environment to which the participant returns is one of the neglected influences on learning transfer. Very little research has been conducted to determine exactly which organizational elements appear to either inhibit or encourage the transfer of training.

Robinson and Robinson (1985) support the notion of the impact of the work environment on training results. In using the formula LE X WE = RESULTS, they are saying that the learning experience and the work environment work together to achieve the desired results. They indicate that the factors which inhibit and facilitate transfer emerge from organizational structures, processes and goals. Because "organizations differ, so will the transfer influences which they produce" (p. 299). They insist that line management has to insure that the environment supports, reinforces and rewards the learner for using new skills and knowledge. In a similiar vein, Universalia (1986) examined job changes to see if participants had received any promotions following their training.

Huczynski and Lewis (1980) introduced the idea of organizational factors which inhibit and facilitate training transfer. They identify three categories of work environment barriers affecting transfer: those the learner brings to the situation; those the learner's supervisor creates; and those the organization contains. Their study found that inhibitors include overload of work, crisis work and failure to convince older workers. Facilitators were related to the capacity of the superior to listen to new ideas and allow experimentation with them. They conclude that "the work situation can usefully be conceived as a field containing forces inhibiting and facilitating the introduction and application of new methods and techniques" (p. 239).

2.3.4 TRAINING OBJECTIVES

When discussing learning theories, Hoffman (1983) states that a course cannot offer on-the-job performance improvements. Because learning produces increased capacity to do, a course can only guarantee teaching/learning activities, and learning objectives can only relate to behavorial changes occurring within the confines of the course. Otherwise stated, learning alone will not produce desired on-the-job behavior. In another article, Hoffman (1985) says that to guarantee results or performance a training

program would, therefore, have a hierarchy of objectives reaching beyond the classroom. They include: lesson objectives, end-of-course objectives, on-the-job objectives, end-results objectives.

Reich (1979), when discussing skills training, indicates that instructional objectives are by far the most important aspect of course design. These objectives not only state what is to be learned but also how it will be measured. The question of objectives, personal and professional, and their importance come to light in the study done by Huczynski and Lewis (1980). They suggest that the participant's motivation to transfer learning can be enhanced by discussing the aims and objectives of the course with an immediate superior.

2.4 TECHNIQUES TO TRANSFER TRAINING TO THE JOB

Most of the literature reviewed delt with strategies or techniques for producing transfer of learning. Kelly, Orgel and Baer (1985) list seven strategies to produce more rapid acquisition, retention and transfer of work skills. While Ehrenberg (1983) suggests incorporating three factors into the learning and application process, Michalak (1981) and others propose setting up systems for maintaining the desired behavior in the work environment. If reinforcement and feedback systems that maintain desired behavior in the workplace are not feasible or practical, then Brown (1983) suggests rule-governed behavior as a way of ensuring that transfer of training occurs.

Zemke and Gunkler (1985), combining the literature on psychology, educational research and training and development, catalogue 28 items into five categories of things that trainers can do to increase the odds that skills, knowledge and behavior acquired in training will be used on the job. The five categories are: pre-training strategies, good training strategies, transfer enhancing strategies, post-training strategies and finessing strategies. Pre-training strategies include everything done to or for trainees before the course starts so they get the most out of training and

what they learn has a chance of being used back on the job. Good training strategies refer to the steps in the analysis, design and development phases of training to increase transfer. Transfer-enhancing strategies include those procedures in training programs to improve on-the-job results. Post-training strategies focus on visible measures to ensure transfer. Finessing strategies include ideas on how to bring training as close to the job as possible.

2.5 TRAINING EVALUATION

Most researchers present excellent arguments for evaluating training programs. They appear to agree with Kirkpatrick (1967) that the purpose of evaluation is to determine the effectiveness of a training program. also seems to be agreement as to the raison d'être of evaluation: an organized feedback system, which collects information about trainees and gives it back to those who provide training. Very often issues are not resolved because each discussant seems to be talking about evaluating a different dimension of training. Brethower and Rumler (1977) state that "when people can't agree on what they are trying to evaluate and why, theyactually won't agree on how to evaluate" (p. 103). In effect, this review picked up differences in the evaluation methods proposed. Kelley, Orgel and Baer (1984) suggest hard data collection that measures profit-relevant trained behaviors. An example of the performance measures that best reflect the effectiveness of sales training would be the pre-and post-training sales records of the trainees. Because they argue that preand post-training questionnaires don't assess performance but only momentary opinions of performance, they recommend a step beyond statistical analysis graphic comparison of productivity figures before and after training.

Quinn and Karp (1986) and Zenger and Hargis (1982) conclude that the effectiveness of a program is accurately measured when a pre-training questionnaire is compared to a post-training evaluation. They feel that this measurement tool reflects what people learned and how they are using it on the job. Wehrenberg (1983) believes that to determine the success of a

ÿ

program only performance on the job needs to be measured, in other words, one should measure actual observed use of the skill on the job. He suggests that the ideal evaluation would use trainees and a control group and would measure performance, behavior, knowledge and attitude before and immediately after training and again, six months or more after training. The use of only pre-and post-training measures or the use of only trainees and a control group can both present problems. He suggests the best approach is to use both methods. Preziosi and Legg (1983) agree that the pre-post type of self-reporting, although cheap and easy to administer, can create problems. They introduce the concept of pre-then-post testing using trainees and a control group to identify precisely the impact of training. Eckenboy (1983) agrees with other researchers that the ultimate effectiveness indicator for any skills-training program is on-the-job performance. It is difficult to establish the degree to which performance improvement can be directly attributed to specific training. He recommends a simple tool that evaluates content, presentation and participant applicability.

Dunn and Thomas (1985) identify four levels of evaluation for training programs: satisfaction, learning, behavior and results. This evaluation can be before, during and after training depending on the level to be evaluated. Zenger and Hargis (1982) present three criteria to consider when evaluating these four levels: they include rigor (reliability, validity, precision of measurement), relevance (link to organizational goals) and economy (cost-benefit). Zemke and Gunkler (1985) refer to evaluation as a strategy for transferring learning. You test performance at the end of training and you observe and retest performance back on the job. Along the same lines, Salinger (1978) has developed a process for measuring and evaluating the impact of training on job behavior. Essentially, it taps change in behavior after training in a four step system: in-class activities, a follow up, analysis of the information gathered and a written report describing the results.

Evaluating training programs in terms of knowledge, skills, attitudes and performance improvement is more difficult than evaluating training in terms

of reaction and learning. The Moon and Hariton (1958) study asked repondents through a questionnaire, to compare present conditions with conditions two years before. Instead of measuring the attitudes before and after the training, subordinates and trainee managers were asked to identify what changes had taken place during the two years following the training. The Stroud (1959) study asked respondents to compare on-the-job behavior before the program with that following the program. Kirkpatrick (1969) using a questionnaire and interview research design, attempted to measure changes in behavior and determine what results were achieved. Data indicated that significant changes in both behavior and results were achieved.

The Universalia (1988) evaluation of the Carribean Airports Project (CAP) provides an analysis of a wide range of training activities and the effects the training was having on jobs. The CAP is providing training and other assistance within 23 airports in 12 Carribean countries. Some 529 CAP trainees were involved in this study. It examined the effectiveness of training sessions and transfer of training to the job. The sources of data used were: trainee and trainer reactions (end of training questionnaire), a sample of trainee and supervisor reactions (mailed follow-up questionnaire) and former trainees and supervisors (on-site interviews, 2-14 months after the training). Findings suggest that the training was effective in meeting most trainee needs, in teaching new skills, attitudes and knowledge, and that trainees effectively applied new learning to the job.

Training evaluation literature appears to make two assumptions:

)

1) The further removed training is from manual or manipulative skills and the closer it approaches the functions of cognition, judgment and personal effectiveness, the more difficult it is to determine the existence of measurable causal relationships between training and its effects;

2) For an evaluation to be successful, some decision about the program must be based on the evaluation results. The training should be cut, lengthened, changed or retained because of evaluations findings.

The issues and problems related to evaluation are numerous. It is understandable, therefore, that despite the fact that evaluation of training has become an issue, many evaluation efforts have come up empty, producing findings that are inconclusive, disbelieved, unreliable or simply ignored.

2.6 SUMMARY

Much has been written about the need for and the difficulty involved in measuring the value of training and development programs from the job performance point of view. The remarkably few reported evaluation studies indicate that the problems encountered in conducting effectiveness studies are by no means insurmountable, particularly if neither the experimental design nor the measuring instrument are very elaborate.

The literature identifies some of the main factors which affect the transfer of training to the workplace and is reasonably extensive with respect to the role of the supervisor in the process. It is sparse, however, in linking factors such as learner characteristics, the role of the work environment and the achievement of course objectives as factors in the transfer process. Huczynski and Lewis (1980) conducted a study found to be pertinent to this study. They concluded that the training transfer process is like the links in a chain. The links are the trainee, the trainee's supervisor, the trainer and, the organizational context. If transfer is to occur, all the links have to hold together when the chain is pulled. If one of the links fails then the chain breaks.

This study seeks to evaluate the effects of training on job performance in light of previous research on training transfer and to identify some of the factors which distinguish the learning "experimenters", those who transfer

the new learning, from the "non-experimenters", those who do not transfer what they learned. From the four levels of evaluation already identified, Figure 2.3 presents an evaluation matrix based on the Brethower and Rumler (1977) model. It goes without saying that this action research occurred in a real situation with all the constraints imposed by a large, bureaucratic organization going about getting its work done. The level of evaluation in which job performance is the focus was conducted in the reality of the organization rather than in a laboratory.

A summary of the literature reviewed is presented in Figure 2.4.

2.7 RESEARCH QUESTIONS

This study investigated general considerations in the field of training through specific reference to EIC and employment counsellors trained in employer services:

- 1.0 Do participants achieve the course objective?
- 2.0 Which skills developed and knowledge acquired by participants in training are transferred to the job?
 - 2.1 What is the effect of the training on the experimenters' jobs?
- 3.0 What is the importance of learner characteristics in enhancing transfer?
- 4.0 What is the importance of participants' perceptions of training in enhancing transfer?
- 5.0 What roles do the work environment and the supervisor play in the transfer process?
- 6.0 Are there any other factors which enhance tranfer?

FIGURE 2.3: AN EVALUATION MATRIX SHOWING THE FOUR LEVELS OF EVALUATION

TRAINEES	TRAINING COURSE	TRAINED STAFF	THE JOB/ ORGANIZATION	RESULTS/JOB PERFORMANCE
	REACTION	I LEARNING	PERMORMANCE	 IMPACT
Degree	I	II	III	IV
What I want to know	Are the trainees satisfied? If not, Why?	Does the training do what it is supposed to? If not, why?	Are the concepts used? If not, why?	Does application of the concepts impact the organization?
What might be measured				
Measurement dimensions		<i>)</i> .	o	-
Sources of data				c.
Data gathering methodology				
Evaluation criteria				

FIGURE 2.4: SUMMARY OF LITERATURE REVIEWED

THE	MES	AUTHOR
1.	Transfer of training	
,	a) definition	Georgenson, 1982 Zemke and Gunkler, 1985
	b) process	Azevedo and Patrick, 1978 Huczynski and Lewis, 1980 Katz, 1956
	c) techniques	Brown, 1983 Ehrenberg, 1983 Kelly, Orgel and Baer, 1985 Michalak, 1981 Zemke and Gunkler 1985
2.	Learner characteristics and their relationship to training transfer	Huczynski and Lewis, 1980 Michalak, 1981
3.	Role of the supervisor	•
	a) positive influence in the transfer of training	Broad, 1982 Georgenson, 1982 Hoffman, 1983 Huczynski and Lewis, 1980 Lippert, 1983 Michalak and Yager, 1979
gen annyage a	•	Stark, 1986 Trost, 1985 Zenger and Hargis, 1982
	b) negative influence in the transfer of training	Kent, 1982 Ricks, 1979
4.	Role of the work environment in training transfer	Huczynski and Lewis, 1980 Robinson and Robinson, 1985 Universalia, 1986
5.	Role of training objectives in training transfer	Hoffman, 1983, 1985 Huczynski and Lewis, 1980 Reich, 1979

FIGURE 2.4 Cont'd

THEMES **AUTHOR** 6. Training evaluation a) definition Brethower and Rumler, 1977 Kirkpatrick, 1967 b) approaches to evaluative Dunn and Thomas, 1985 data collection Eckenboy, 1983 Kelly, Orgel and Baer, 1984 Kirkpatrick, 1969 Moon and Hariton, 1958 Preziosi and Legg, 1983 Quinnmand Karp, 1986 Salinger, 1978 Stroud, 1959 Universalia, 1988 Wehrenberg, 1983 Zemke and Gunkler, 1985 Zenger and Hargis, 1982

3.0 METHODOLOGY

3.1 INTRODUCTION

This study, one of the first of its kind in the Quebec region of EIC, examined the effects of a national, competency-based, training program on job performance. It is descriptive since no comparison can be made with those who have not yet participated in the training program. It evaluated a specific training program from the job performance application point of view and sought to describe all the crucial elements in the training activity, not just the program content. The evaluation design fits the situation, specifies what is being evaluated and takes advantage of naturally occurring research opportunities.

Data could have been collected from both supervisors and employer clients. In addition, this researcher could have observed and interviewed participants on the job. In fact, data were collected only from program participants. In so doing, one can only assume that the self-reported factors are ir fact, the true factors.

The question asked by this researcher was: what happens after training? The search for an answer was not only an academic exercise but a closing of the loop in a feedback process. Information was available about the trainees and how they reacted to and felt about the training experience. Results of knowledge-gain testing were also gathered. This diverse information was not sufficient to provide evidence of training effectiveness. Therefore, the researcher's interest in this study was motivated by a desire to initiate evaluation research that would link variables such as learner characteristics, learner achievement and supervisory behavior to the transfer of learning process. The aim was to find out whether or not participants were using course learning on the job. If yes, what was being used and why? If not, why not?

This chapter explains how the study was conducted. It describes the training program, the subjects, the instrument design and the data

collection procedures. It contains precise information on the sampling and the instruments as well as detailed analysis of the data. The limitations of the study are set forth.

3.2 SOURCES OF DATA

Data for this study came from the training program, described in Chapter 1, from the course participants, and from a pilot study. The participants in the study were employment counsellors working in Canada Employment Centers across the province. For employment counsellors dealing with employers this first training component is obligatory. Thus far, some 240 counsellors have successfully completed the course. In addition, one did not achieve the desired results on a part of the learning evaluation but succeeded on a retake, another failed the learning evaluation and has yet to do a retake. Approximately 200 counsellors are waiting to take the course. The operational tasks to be studied are those employer-service related duties which the counsellor must do in the performance of his or her job.

In order to measure training transfer, a generic survey, adapted to this particular training situation, was based on one developed by Ruth Colvin Clark (1986). This questionnaire (Appendix I) was sent in March, 1987 to 68 employment counsellors all of whom finished the course between June and November, 1986. To ensure honest feedback, anonymity was encouraged. An initial analysis of this pilot study, based on a return rate of 83.8% indicates a transfer rate of 79.8% for the group. This transfer rate or quotient was obtained by adding up the number of responses of "3" or more to both question B (frenquency of utilisation) and C (improvement), dividing by twice the total number of questionnaires returned (57) and multiplying by 100. When polled, individuals reported that not only was the training directly related to the job but the supervisors and the work environment had played a major role in the transfer of training. These findings confirm wnat has been reported in the literature on the facilitating roles played by both the supervisor and the work environment in the transfer of training to the job. The study provided the researcher with information on the internal

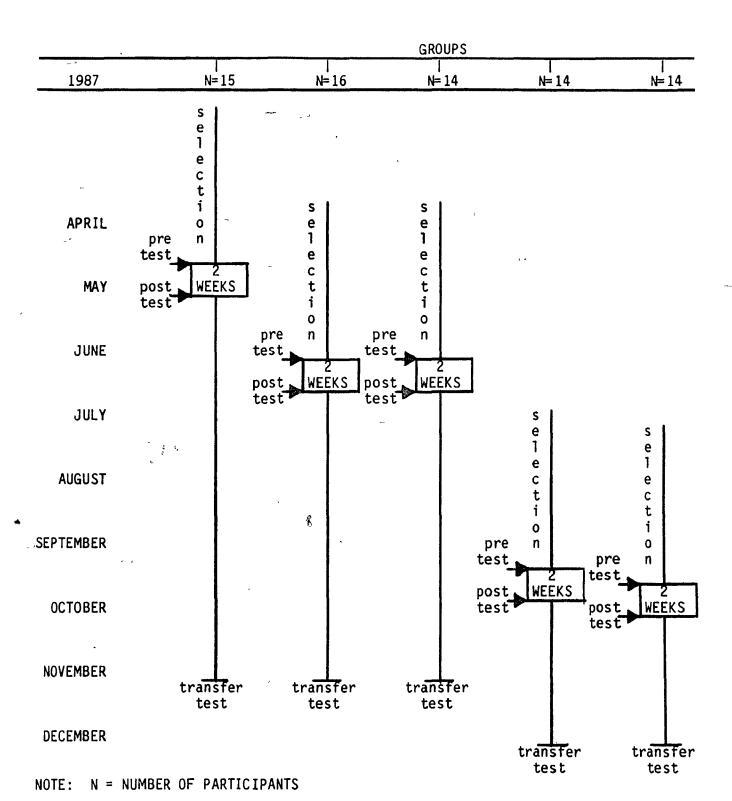
effectiveness of the employer services training as a process. It indicated how the training is perceived and gave some indication of the effect the training is having on people in the organization. A content analysis of an open-ended question led to the development of a list of skills, behaviors and knowledge being transferred to the job. This list was used in the design of the Transfer of Training questionnaire (Appendix VI), more specifically, in Section C of the questionnaire.

3.3 PROCEDURES

At the beginning of the fiscal year the training courses are organized according to the availability of trainers, to the number of places allocated to, each district, to counsellor availability and to district needs. Each course, co-facilitated by a minimum of two trainers, is normally composed of 15 participants. Five already scheduled sessions were selected for the purposes of this research. Budget restrictions and trainer availability concerns were major factors in selecting additional courses scheduled beyond the month of September, 1987. The five sessions, one in late April, 1987 and two in June and September, 1987 respectively, guaranteed representation from the five districts with counsellors coming from some 55 different urban and rural Canada Employment Centers. Also included were on-campus counsellors from both CEGEPs and Universities. Existing selection and identification procedures, as well as pre-training knowledge testing were maintained in order to strengthen the internal validity of the results. Five trainers were involved in the five sessions.

Three data-collection instruments were used in this study. They are described in detail in the Instruments section of this chapter. One was administered by the trainers on the first morning of the course, the second on last day of the course and the third, three to seven months after the course. Figure 3.1 illustrates the timeframes used for the selection, training and data-collection process. The 45 participants who completed the training in May and June received the Transfer of Training questionnaire in

FIGURE 3.1:
TRAINING TIMEFRAMES FOR RESEARCH



November; 28 participants who completed the training in September received the Transfer of Training questionnaire in December.

· ;

A certificate of ethical acceptability for research involving human subjects was granted by the Ethical Review Committee of the Faculty of Education of McGill University. Participants in the study were informed of the nature of the research and to ensure confidentiality all data-collection instruments were number coded.

The training courses were delivered in French and all participants were French-speaking. All the English translations of questionnaire items appearing in this report were done by the researcher. The original French versions can be found in the Appendices.

3.4 SAMPLE

The methodology identified 73, Quebec region, employment counsellors, who were trained in five separate sessions not necessarily with the same trainers. All 73 participants successfully completed the course. The learning was measured by a validated, three-part, end-of-course evaluation.

Table 3.1 shows the approximate total number of counsellor positions by district, the approximate number of counsellors identified for training and the number of counsellors selected for training in this study. It also shows the relationship in percentages between those participating in the study and the number identified for training, thus illustrating that the sample is not a random sample. The number of counsellors identified for training includes those who have completed and those who are awaiting training; the research participants are not included in the number.

The return rate of questionnaires was high, 84.9%. These 62 participants who returned the Transfer of Training questionnaire composed the sample thus permitting generalization to the target population. Table 3.2 shows the

TABLE 3.1: RESEARCH PARTICIPANTS BY DISTRICT

DISTRICT	TOTAL NUMBER OF COUNSELLOR POSITIONS	TOTAL NUMBER OF RESEARCH PARTICIPANTS	NUMBER OF COUNSELLORS IDENTIFIED FOR TRAINING	RATE
Québec/Saguenay/ Lac St-Jean	95	15	99	15.1%
Bas St-Laurent/ Gaspésie/ Côte Nord	48	13	34	38.2%
Sud et Centre	97	18	84	21.4%
Nord-Ouest	73 ,	.7	62	11.2%
Montréal/ Métropolitain	157	20	88	22.7%
TOTAL	470	73	367	19.8%

NOTE: Counsellors identified for training can include those individuals who are occuping the position on an "acting" (temporary) basis.

TABLE 3.2: QUESTIONAIRE DISTRIBUTION AND RESPONSE RATE

DISTRICT	DISTRIBUTED	RETURNED	RATE
Québec/Saguenay/ Lac St-Jean	15	13	86.6%
Bas St-Laurent/ Gaspésie/ Côte Nord	(13	12	92.3%
Sud et Centre	. 18	17	94.4%
Nord-Ouest	7	6 -	85.7%
Montréal/ Métropolitain	20	14	70.0%
TOTAL	73	62	84.9%

number of participants to whom the questionnaire was distributed and the number returned, by district.

The background characteristics, namely, age, education level, experience and previous training of the sample are of interest in this study and are shown in Tables 3.3, 3.4, 3.5 and 3.6. The major characteristics of the sample can be summarized. Eighty percent of the sample is in the 31-50 age range with 52% having completed a university undergraduate degree. In addition, 61% have ten years or more experience as employment counsellors and 56% have been involved in up to four weeks of previous training.

3.5 INSTRUMENTS

Several instruments medsuring different variables were used in this study. This section describes the instruments under the headings of Participant Characteristics, Participant Perceptions of Training and Transfer of Training.

3.5.1 PARTICIPANT CHARACTERISTICS

3.5.1.1. Motivation

Participant attitudes, motivation and needs were obtained on the first morning of the training course. This questionnaire (Appendix II), designed by the researcher and administered by the trainers, was examined for face validity by a university professor in educational administration and by two CEIC counselling psychology consultants. A test version was administered to four employment counsellors on the first day of a training course and subsequent modifications were made. Table 3.7 displays results for the three items in this questionnaire.

These three questionnaire items were then intercorrelated to see if there was an underlying structure and were subjected to a principal components factor analysis. Since only one factor was retained by the proportion

TABLE 3.3: PARTICIPANT BACKGROUND CHARACTERISTIC: AGE

CHARACTERISTIC	NUMBER	PERCENTAGE
AGE		1
1. 20-30	5	. 8%
2. 31-40	24	39%
3. 41-50	26	42%
4. 51-64	7	11%
TOTAL	62	100%
		,

Total Responses	62
Mean	2.56
Standard Deviation	80

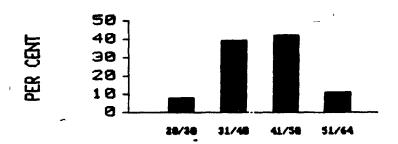


TABLE 3.4: PARTICIPANT BACKGROUND CHARACTERISTIC: EDUCATION

CHARACTERIST	IC	NUMBER	PERCENTAGE
EDUCATIONAL LE	VEL		
L. High School	(incomplete)	1	2%
2. High School	(complete)	5	8%
3. College	(incomplete)	4	6%
. College	(complete)	, 6	10%
6. University undergraduate	(incomplete)	11	. 17%
. University undergraduate	(complete)	32	52%
. University post-graduate	(incomplete)	0	0%
3. University post-graduate	(complete)	3	5%
TOTAL		62	190%

Total Responses	62
Mean	5.13
Standard Deviation	1.51

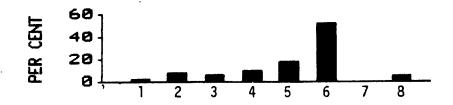


TABLE 3.5: PARTICIPANT BACKGROUND CHARACTERISTIC: EXPERIENCE

CHARACTERISTIC	NUMBER	PERCENTAGE
EXPERIENCE AS AN EMPLOYMENT COUNSELLOR		
1. 6 months or more	0	0%
2. 6 months - 1 year	. 2	3%
3. 1 - 5 years	12	19% -
4. 5 - 10 years	10	16%
5. 10 years or more	38	62%
TOTAL	62	100%



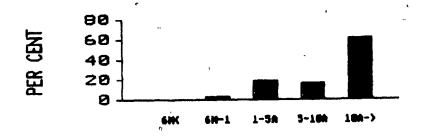


TABLE 3.6: PARTICIPANT BACKGROUND CHARACTERISTIC: PREVIOUS TRAINING

CHARACTERISTIC	, NUMBER	PERCENTAGE
OTHER TRAINING		
1. Never	25	40%
2. 0 - 2 weeks	19	30%
3. 2 - 4 weeks	15	25%
4. 4 - 6 weeks	. 2 ⋅	3%
5. 6 weeks or more	1	2%
TOTAL	62	100%

Total Responses		61
Mean	-	1.95
Standard Deviation	,	.97

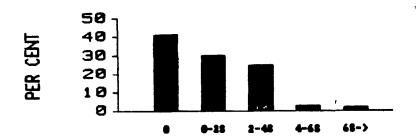


TABLE 3.7 RESULTS ON PARTICIPANT MOTIVATION QUESTIONNAIRE

ITEM	X	SD
1. I am comfortable in the performance of my job	2.03	.97
2. I am motivated to be here in training	1.73	.79
3. The course meets my needs	1.77	.73
	a	

€,

NOTES:

Number of respondents = 62 \overline{X} = Mean

SD = Standard Deviation

ITEMS claculated for means on the following scale:

1 = Strongly Agree

2 = Agree

3 = No Opinion

4 = Disagree

5 = Strongly Disagree

criterion and a scree test, rotation was not possible. The factor loadings of the three items are shown in Appendix III. Item one was eliminated because of low loading on the factor. By selecting items with factor loadings greater that 0.6, a scale named MOTIVATION was created as illustrated in Table 3.8. This new scale was used for more elaborate statistical analysis described in Chapter 4 of this study.

3.5.1.2. Background Characteristics

Information regarding age, education level, experience and previous training was gleaned from an existing, validated end-of-course questionnaire (Appendix IV). This questionnaire was an integral part of the original course design and was subsequently modified by the Quebec region training consultants to suit local needs. It is always administered by the trainers.

3.5.2. PARTICIPANTS' PERCEPTIONS OF TRAINING

Participants' perceptions of the various stages of training were collected from the above mentionned validated end-of-course questionnaire (Appendix IV). The 22 perception items (5-26) in this questionnaire were factoranalyzed to determine the presence of an underlying factor structure. A principal components factor analysis followed by a varimax rotation revealed nine interpretable factors according to the proportion criterion and a scree test. The rotated factor loadings of each item on the nine factors is shown in Appendix V. Items loading on more than one factor were assigned to one or other factor or were eliminated. In general, items loading highest on a factor were retained and items appearing on multiple factors were assigned to the factor where the loading was highest. Factors 4, 8 and 9 were eliminated because of assignment and concept repetition. Factor 4 contained two items not assigned elsewhere and factors 8 and 9 each contained one factor not assigned elsewhere. By selecting items with factor loading greater than 0.4 it was possible to create the six reasonably orthogonal scales. These six scales, OBJECTIVES ACHIEVEMENT, EFFORT, PROCESS,

- TABLE 3.8. ITEMS AND FACTOR LOADINGS OF PARTICIPANT MOTIVATION—ON ONe FACTOR

FACTOR	SCALE	QUESTION NUMBER	ITEMS	FACTOR LOADING
1	MOTIVATION	2	I am motivated to be on training	.82
	,	3	The course meets my needs	79

TECHNIQUES, NEEDS and PREPARATION are shown in Table 3.9 and are used for more elaborate statistical analysis described in Chapter 4. Three of these scales, OBJECTIVES ACHIEVEMENT, PROCESS and NEEDS are similar to those used by Universalia (1988) when analyzing participants' perceptions of airport related training in the Carribean.

3.5.3. TRANSFER OF TRAINING

In order to identify what changes, if any, gained through the training activity were actually applied to the job and also to identify the factors which facilitated or hindered the practical application of the new learning, a Transfer of Training questionnaire was designed and used by the researcher (Appendix VI). In this approach, participants were asked to compare on-the-job behavior before the program with that following the program. This instrument consisted of four major sections:

- a) achievement of the stated training objective
- b) frequency of use of new knowledge
- c) transfer of training on job performance
- d) · facilitating or inhibiting transfer factors

It was sent by the CEIC internal mail and was completed by the participants at work. This instrument was examined for face validity by a university professor in educational administration and by both an CEIC counselling psychology and an employer services consultant. A test version was administered to five employment counsellors who had successfully completed the training and appropriate changes were made based on comments and suggestions. The transfer of training to the job items were factor analysed to see if there was an underlying structure in the transfer pattern. This is discussed in Chapter 4.

TABLE 3.9: ITEMS AND ROTATED FACTOR LOADINGS OF THE PARTICIPANT PERCEPTIONS OF TRAINING ON SIX FACTORS

FACTOR	SCALE	QUESTION NUMBER	ITEMS	FACTOR LOADING
1	OBJECTIVES ACHIEVEMENT	23	I feel more confident towards my job requirements	.82
		24	I will be more effective in my job	.79
		22	Training made me more aware of my behavior with an employer	66
2	EFFORT	12	I worked hard during the training	.74
		10	Training had right level of difficulty	.62
3	PROCESS	16	Right amount of lecturing in the course	.73
*		20	Trainers were well pre- pared	.63
		11	Training was well organ- ized	.46
		13	Presentations were clear	.46
. 5	TECHNIQUES	17	Right amount of group dis- cussion in the course	.79
		15	Right amount of practical exercises in the course	.73

TABLE 3.9: Cont'd ITEMS AND ROTATED FACTOR LOADING OF THE PARTICIPANT PERCEPTIONS OF TRAINING ON SIX FACTORS

FACTOR	SCALE	QUESTION NUMBER	ITEMS	FACTOR LOADING
6	NEEDS .	7	Course content meets my needs	.65
	-	8	Course content can be used in my job	.64
7	PREPARATION	5	I received information before the course began	.73
	,	6	Training objectives were determined before arrival	.65

3.6 ANALYSIS

Quantitative information was sought in this study. All questionnaires were number coded and data entries were made on a tested computer software system. Frequency distributions were obtained for all variables. Descriptive statistics were calculated for all ordinal data. Items were analysed using descriptive statistics such as means, standard deviations, percents, counts and so forth.

A factor analysis was performed on the participant motivation items, the participant perceptions of training items and on the transfer of training items. This resulted in the creation of new scales; one for motivation, six for perceptions of training and six for transfer of training. Analysis of variance was performed across intervening variables of age, level of education, experience and previous training with the 13 newly created scales. Pearson correlations were used to measure all 17 variables with each other. In cases where statistical analysis was inappropriate, a content analysis approach was employed.

3.7 LIMITATIONS

This study is limited in several areas.

Results

The research results will have to be interpreted cautiously and applied to this specific program in this specific application.

External Validity

It is unlikely that generalizations across widespread applications will be possible; thus limiting external validity.

Internal Validity

Non-respondents, the highest number of which were in the Montreal district, may be those who didn't feel that the training was pertinent and hence failed to transfer learning to the job. This factor definitely poses a threat to internal validity.

Role of the researcher

Biases toward this researcher, who administers the program and who also conducts training sessions, might have resulted in favor of more transfer being reported than is actually taking place.

Measurement Issues

It is difficult to determine if participant self-reported changes did occur as a result of training. It is equally difficult to isolate the effect that is caused by the training program.

Design issues

The Transfer of Training questionnaire staggered over a time period of 3-6 months might have contaminated attitudes toward the training process. The design did not allow for the nine respondents, who did not transfer the new learning to the job, to indicate, what if anything, they did learn while on training. The questionnaire design assumed that those respondents who did not achieve the course objective did not learn anything during training. This assumption may or may not be correct. In addition, this researcher does not know why they did not achieve the course objective.

4.0 RESULTS AND DISCUSSION

4.1 INTRODUCTION

This chapter presents and discusses the findings of the study. The chapter is organized according to the various research questions. Where analyses did not yield significant results, tables of results are not included.

4.2 OUTCOMES OF TRAINING

Research question #1: Do participants achieve the course objective?

The 62 participants can be divided into two groups: those who did not achieve the course objective and those who achieved the course objective and did acquire the intended learning while on training. Two participants were in the former category and 60 were in the latter.

A close look at these two participants who did not achieve the course objective_reveals several common underlying factors. The data obtained from the Participant Motivation questionnaire (Appendix II) and the Participant Perceptions of Training questionnaire (Appendix IV) indicate that one participant, in the 41-50 age group, who had a college level education, had ten years or more experience as an employment counsellor and was the only respondent to have had six weeks or more of other training in the last two years. This respondent had received no information about the course, did not determine training objectives before the course and was "indifferent" about being on the training. This same respondent did, however, give the training a "good" overall rating at the end of the session. The other ' participant was in the 20-30 age group, had an undergraduate university level education, had 1-5 years experience as an employment counsellor and had received up to two weeks of training in the last two years. This respondent also had received no information about the course and had not determined training objectives before the course but was "motivated" to be

on the training. This participant generally gave the training an "average" rating although qualified that rating by indicating that the course could have been shorter.

The fact that neither participant had received pre-course information or had determined training objectives would confirm the findings of the Huczynski and Lewis (1980) study regarding the importance of course objectives and information as a basis for supervisor/participant interaction prior to training.

4.3 TRANSFER OF TRAINING TO THE JOB

Research question # 2: Which skills developed and knowledge acquired by participants in training are transferred to the job?

The data collected from the Transfer of Training questionnaire (Appendix VI) indicated that of the 60 participants who achieve the course objective, nine did not experiment with the new learning and 51 did experiment with the new learning. Of the nine participants (15%) who did not use the new learning on the job, five indicated job change as the main inhibiting factor. One of these five participants, now an acting supervisor, noted that the knowledge acquired in training had been helpfull in organizing, planning and evalulating the work of the employment counsellors in the work unit. Three participants indicated that lack of time or lack of opportunity prevented them from transferring the new learning to the job. There is no underlying pattern in terms of learner characteristics for these non-experimenters. They were motivated to be on the training; their ages, levels of education, experience and previous training cut across the given levels. One participant learned nothing new and questionned the value of training for people already doing the job. This participant had not determined objectives before the training, was not motivated to be on the course and didn't feel the course met job needs. Situated in the 41-50 age range with ten years or more as a counsellor, this participant had not been involved in any other training in the past two years.

It would appear that if the work environment is in part responsible for new learning not being applied to the job, then management has an interest to ensure that trainees have the opportunity as well as the job assignment to use new learning. In the case of these nine participants, training has suffered from insufficient linkage with supervisory and management level attitudes and decisions.

The 51 participants who did experiment with the new learning were asked in the Transfer of Training questionnaire (Appendix VI) to indicate the impact that each of 20 items had on their job performance. Table 4.1 shows the transfer of training items ranked in order of importance. Appendix VII shows the same transfer items reported in percentages. The 51 experimentors reported job performance improvement for all items; the most significant improvement area was that of negotiation skills followed by hiring practices and procedures. Trainers report and this researcher has observed that participants get involved in the negotiation skills section of the course and that they enjoy observing and practicing the techniques involved in a negotiation situation between two equals. Similarly, the participants find it refreshing to see the hiring process from the employer's point of view.

The least significant transfer items were understanding employers' labor-market information needs and preparing an employer contact. Firstly, there is confusion surrounding the concept of labor-market information - what it is, when and where it is useful. As a result, counsellors are unsure of their role in this area and hesitate to be proactive when dealing with the employer client. The training content does not shed any light on these dilemmas hence the low ranking in terms of learning and transfer impact.

Secondly, the low rating for the preparation of an employer contact could mean one of two things: either the participants are knowledgeable in this area before coming to training or they do not see the value of this training content in terms of their day to day activities.

It is interesting that the most and least significant transfer items support trainers' and this researcher's informal evaluations of the training/

TABLE 4.1: TRANSFER OF TRAINING ITEMS RANKED IN ORDER OF IMPORTANCE

No.	Item	X	SD	RANK	
3.	Interpretion of non-verbal messages	2.10	.60	12	
4.	Listening skills .	1.90	.80	7	
5.	Empathy	2.12	.82	14	
6.	Interview techniques	1.98	.78	10	
7.	Negotiation skills	1.71	.77	1	
8.	Plan and organize work	2.14	.82	15	
9.	Identify employers' needs	1.84	.67.,	3	
lO.	Help employers solve problems	1.98		9	
1.	Understand employers' concerns	1.94	.61	8	
12.	Understand employers' labor market information needs	2.34	. 89	19	
13.	Hiring practices and procedures	1.78	.69	2	
4.	Identify companies that could benefit from human resource planning	1.88	.86 _{. ,}	5	
.5 •	Explain the advantages of human resource planning	1.88	1.10	4	

TABLE 4.1 Cont'd TRANSFER OF TRAINING ITEMS RANKED IN ORDER OF IMPORTANCE

No.	Content	X	SD	RANK
16.	Preparing an employer contact	2.37	1.01	20
17.	Evaluating an employer contact	2.22	.80	18
18.	Conduct interesting and effective visits	2.12	.92	13
19.	Knowing my role as an employment counsellor	1.88	.83	6
20.	Knowing the EIC mission	2.10	.72	11
21.	Using work-related aids	2.16	.61	17
22.	Confidence level when dealing with an employer	2.16	.80	16

Notes:

- Number of respondants = 51

No. = Number
X = Mean

SD = Standard deviation

Items calculated for means on the following scale:

Significant Improvement

Slight Improvement 2 =

No Change 3 =

Not Sure

Not Applicable

learning process. In general, the training is effective in developing skills and abilities and in teaching new knowledge and behavior that are being transferred by participants to their jobs in the area of employer services.

In order to find out what patterns emerged, these 20 transfer of training items were factor analyzed to determine the presence of an underlying factor structure. A principal components factor analysis followed by a varimax rotation revealed eight interpretable factor according to the proportion criteria and a scree test. The rotated factor loadings of each item on the eight factors is shown in Appendix VIII. Items loading on more than one factor were assigned to one or other factor or were eliminated. In general, items loading highest on a factor were retained. Items appearing on multiple factors were assigned to the factor where the loading was highest or where the content concept was consistent. As a result, two factors (7 and 8) were eliminated. Factor 7 contained only one item not assigned elsewhere. The items loading 0.4 or more on a single factor were grouped together to form a cluster. The clusters, items and rotated loadings for the 18 items used on six scales are summarized in Table 4.2.

These six new scales - KNOWLEDGE, ORGANIZATION, INTERPERSONAL, INTERNAL DIRECTION, SKILLS and EMPLOYER RELATIONS were used to analyze and correlate the variables which enhance the transfer of training (Research Question # 3).

Research question #2.1: What is the effect of the training on the experimenters' jobs?

Participants who experimented with the new learning ranked the importance of each of five summative effect of training items in the Transfer of Training questionnaire (Appendix VI). Table 4.3 displays means, standard deviations and overall rankings in importance of each of the outcome items.

TABLE 4.2: ITEMS AND ROTATED FACTOR LOADINGS OF THE TRANSFER OF TRAINING ITEMS ON SIX FACTORS

FACTOR SCALE	QUESTION NUMBER	ITEMS	FACTOR LOADING
1. KNOWLEDGE	15	advantages of human resource planning	.70
	21	work related aides	.61
	13	hiring practices and procedures	.57
2. ORGANIZATION	22	confidence level when dealing with an employer	.72
	18	conduct interesting and effective visits	.70
_	8	plan and organize work, 🕜	.62
3. INTERPERSONAL	4	listening skills	.79
	5	empathy	.73
	3	interpretation of non-verbal messages	.42
	6	interview techniques	.42
4. INTERNAL DIRECTION	- 20	knowing the EIC mission	.77
DIRECTION	19	knowing my role as an employment counsellor	· .67

TABLE 4.2 Cont'd ITEMS AND ROTATED FACTOR LOADINGS OF THE TRANSFER
OF TRAINING ITEMS ON SIX FACTORS

FACTOR SCALE	QUESTION NUMBER	ITEMS	FACTOR LOADING
5. SKILLS	7	negotiation skills	.72
	10	help employers solve problems	.50 、
	12	understand employers' labor market information needs	.49
6. EMPLOYER RELATIONS	14	identify companies that would benefit from human resource planning	.80
	9	identify employers' needs	.59

TABLE 4.3: IMPACT OF TRAINING ITEMS RANKED IN ORDER OF IMPORTANCE

No.	Items	X	SD	RANK	
1.	Acquisition of new learning *	2.29	1.14	2	
2.	Acquisition of new approaches and new techniques	2.02	1.15	1	
	Introspection and better understanding of myself	3.33	1.25	4	
	Interaction with other employment counsellors	4.06	1.14	5	
	Change of attitude toward my employer clients	3.29	1.32	3	

Notes:

Number of respondents = 51

No. = Number
X = Mean

SD = Standard Deviation

Items calculated for means on the following scale:

1 = Most Important 5 = Least Important

Twenty-two respondents (45%) indicated that the most important outcome of the training in relation to their job performance was the acquisition of new approaches and new techniques. Since this is the first employer service oriented training given by CEIC to front line professionals and since the majority of employment counsellors have 10 years or more experience, new ways of doing business have obviously responded to a definite need. Acquiring new learning was cited by 22 respondents (43%) as the second most important outcome of the training. The trainers have consistently reported that knowledge related modules, such as human resource planning and hiring practices and procedures have always been appreciated by the trainees. They are enthusiastic about being exposed to new theories and applications.

Seventeen respondents (35%) indicated that the training forced them to change their attitudes toward their employer clients. Trainees have verbalized that the training enabled them to perceive themselves as equal partners with employers. In the past, employment counsellors report that they tended to underestimate their strengths and lack of quality visit preparation time left them feeling ill-prepared and unable to deal effectively with employer clients. CEIC wants the counsellors to act as consultants who help employers solve their business problems. In the past, the emphasis placed on the counsellor's role was one of production. They were vendors of programs and services. The counsellors are feeling good about the qualitative shift from what was a quantative performance measurement.

Fifteen respondents (29%) reported that the training gave them the time and opportunity for introspection and enabled them to understand themselves better. The training allows for self-evaluation, self-ratings and opportunity for peer and trainer feedback.

A surprising result is that 25 respondents (49%) rated the interaction with other employment counsellors as the least important outcome of training. Participants on training generally report that they enjoy getting away from the job and discussing with their peers from other offices and other districts. However, it is obvious that their hopes to gain knowledge which

can be applied on the job becomes the measurement by which the success of a program is evaluated. The real measure of the usefulness of a training course is whether it changes skills, abilities, knowledge, attitudes or behavior back on the job.

4.4 FACTORS WHICH ENHANCE TRANSFER

Table 4.4 is a simple correlation matrix which shows the correlations among the 17 variables representing the learner characteristics motivation (number 11) and background characteristics (number 1-4), the perceptions of training scales (number 5-10) and the transfer of training scales (number 12-17). This Table formed the basis of the analysis of all the transfer factors and will be referred to for the analysis and discussion of each of the enhancing factors. Variables that were statistically significant were explored with Anova. /

Research question # 3: What is the importance of learner characteristics in enhancing transfer?

4.4.1 LEARNER CHARACTERISTICS

The learner characteristics of motivation, age, level of education, experience and previous training were explored in terms of transfer and are examined individually.

4.4.1.1 Motivation

Table 4.4 shows no significant relationship between MOTIVATION and the transfer variables. It appears that although the experimenters were motivated to be on the training and to apply the new learning, motivation as measured here has a minimal relationship to the quality and quantity of learning transfer from the classroom to the job.

TABLE 4.4: A CORRELATION MATRIX OF 17 VARIABLES

e)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
L. AGE																	
2. EDUCATION	12				•									, '			
. EXPERIENCE	.29*	.03										-			<i>,</i> ,		
TRAINING OBJECTIVES	16	.09	-21				<u> </u>						`.			\	
. ACHIEVEMENT	25	.11	10	04									·				
. EFFORT	05	.13	07	.05	.45**	;		•									
. PROCESS	.09	04	14	03	.53**	.40*	* '										
. TECHNIQUES	.09	26	16	18	.21	.11	.21										
. NEEDS	01	.06	.00	10	.58**	.43*	* .49*	* .05 °									
O.PREPARATION	.22	.01	.19	04	.00	.08	.05	03	.16								
1.MOTIVATION	.07	.13	.00	17	10	.06	15	34*	.13	.28*							
2.KNOWLEDGE	03	.11	19	30*	09	.01	07	06	.09	02	.27*					1	Į,
ORGANI- 3.ZATION	.09	08	.16	22	05	.05	.02	.23	.27*	.10	.11	.34**					
INTER- 4.PERSONAL	45**	·04	04	.09	.21	.13	.17	.04	.20	21	02	.29*	.20				
INTERNAL 5.DIRECTION	16	.14	12	04	.13	09	.10	.09	.25	11	27	.25	.32*	~.31*			
6.SKILLS	.30*	.03	05	24	03	.01	.22	.02	.20	.06	.18	.44**	.42*	* .08	.20		
EMPLOYER 17.RELATION	.25	22	03	13	16	.00	02	13	.15	.31*	.20	.34**	.24	14	06	.20	

NOTE:

^{* =} Significant at \leq P = 0.05 ** = Significant at \leq P = 0.01

4.4.1.2 Age

Table 4.4 illustrates two significant relationships between age and the transfer variables of INTERPERSONAL and SKILLS. Appendix IX shows the analysis of variance for age and INTERPERSONAL transfer where there is a statistically significant (p 05) relationship between age and INTERPERSONAL. Inspection of the means shows that the older the learner, the more difficult it is to develop and apply interpersonal skills. Participants, in this training situation, find it particularly difficult to practice and use interpersonal skills such as interpreting non-verbal messages, empathy, listening and interview techniques with employer clients.

Examination of the relationship between age and SKILLS transfer (Appendix X) shows that age is related to other skills development and application in the workplace. This is particularly evident where finely-honed negotiation skills enable the employment counsellor to enter the closely-guarded world of corporate problems in which the client employer works. The employment counsellor is then better able to understand the employer's needs, whether these needs be in the area of labor market information or in other areas where the counsellor's expertise can have a significant effect.

4.4.1.3 Education

Table 4.4 shows no significant relationship between the level of education and any of the learning and transfer variables.

4.4.1.4 Experience

Table 4.4 shows no significant relationship between the number of years of experience a participant may have and the transfer variables.

4.4.1.5 Previous Training

Table 4.4 shows a relationship between the training to which the participant has been exposed and the KNOWLEDGE variable of transfer. Appendix XI shows

the analysis of variance for previous training and the KNOWLEDGE transfer variable where there is a statistically significant ($p\angle.05$) relationship between previous training and KNOWLEDGE. The five levels of time spent in training (Appendix IV) were grouped into three cells: cell 1: no previous training; cell 2: 0-2 weeks; cell 3: 2 weeks to 6 weeks or more. Examination of the means shows that the more training to which the learner is exposed, the more learning and transfer in the KNOWLEDGE area occurs. In this particular program, the KNOWLEDGE factor refers to items such as the advantages of human resource planning, hiring practices and procedures and work related aids.

4.4.2. PERCEPTIONS OF TRAINING

Research question #4: What is the importance of participants' perceptions of training in enhancing transfer?

In order to analyze the participants' perceptions of the training process 22 items (5-26) in the Perceptions of Training questionnaire (Appendix IV), were organized into three categories: training process, needs and outcomes. Appendix XII shows the participant reactions to the training process. Perceptions are generally positive. Areas for improvement include a greater emphasis in determining the training objectives before the start of training (Question 6), ensuring that all participants receive the course information before the start of the training (Question 5) and re-evaluating the pace of the two week training (Question 9). Appendix XIII shows the participant reactions to needs. It indicates that the training was perceived as meeting needs and having direct job application. Appendix XIV shows the participant perceptions of the training outcomes. At the end of training, participants perceive the outcomes as worthwhile and beneficial. Table 4.5 shows how the 62 respondents rated the training on an overall basis. Kirkpatrick (1976) feels that the first step in any evaluation process is to determine how participants feel about the training program. Those "who enjoy a training program are more likely to obtain maximum benefit from it" (p.18-9). The fact that the majority of participants gave this program a high rating is

TABLE 4.5: PARTICIPANTS' RATING OF THE TRAINING

SCALE	NUMBER	PERCENTAGE
Excellent	19	31%
Very Good	32	52%
Good	8	12%
Average	3	5%
Poor	0	0%
A waste of time	0	0% *
TOTAL =	62	100%

still no assurance that learning has taken place nor does it guarantee that behavior will change.

Table 4.4 shows that there is no significant relationship between the perception variables (OBJECTIVES ACHIEVEMENT, EFFORT, PROCESS, TECHNIQUES, NEEDS, PREPARATION) and the transfer variables. One can note that PREPARATION relates to the learning/transfer variable of EMPLOYER RELATIONS. The common denominator of these two variables is preparation and its corollary, organization. PREPARATION is also related to MOTIVATION; the interpretation being the better the preparation the higher the motivation to be on the training. Neither of these relationships was considered significant enough to warrant further analysis.

4.4.3 THE ROLE OF THE SUPERVISOR AND THE WORK ENVIRONMENT

Research question #5: What roles do the work environment and the supervisor play in the transfer process?

Six factors in the Transfer of Training questionnaire (Appendix VI) were listed as possible reasons which facilitated the transfer of the new learning. Participants were asked to indicate which factor or factors facilitated the practical application of what they learned. Table 4.6 displays the number, the percentage, the means, the standard deviation and the rank for each of the facilitating factors. Although the literature separates the roles which the supervisor and the work environment have on the transfer of training, this study deals with the roles as inseparable factors facilitating or inhibiting the application of the new learning.

Results indicate that encouragement given by the supervisor and receiving the time and means necessary to apply the new learning rank as important facilitating factors. This finding agrees with the conclusions of both Zemke and Gunkler (1985) and Huczynski and Lewis (1980) that the supervisor is the pervading influence in all phases of the learning transfer process. The supervisor discusses the course content, objectives and relevance with

TABLE 4.6: FACTORS FACILITATING TRANSFER

	FACTOR	N	%	<u>x</u>	SD	R
•	time and means necessary to apply the new learning	20	41%	1.59	.49	3
•	supervisor encouraged the use of the new approach	27	53%	1.47	.50	2
•	supervisor and I discussed how to integrate the new learning in my job duties	10	20%	1.80	.40	6
•	new learning was directly related to my job	39	76%	1.24	.42	1
•	supervisor had taken a one week employer service training course	11	22%	1.78	.41	5
•	opportunity to discuss course content with my colleagues	19	38%	1.62	.49	4
•	other reasons	6	12%	1.88	.32	7

NOTES:

N = Number of participants

 \overline{X} = Means

SD = Standard Deviation

R = Rank

Of the 51 participants who had used the new learning, most indicated more than one facilitating factor.

the prospective participant before the course starts and becomes the supporter of the new learning once the course is over.

Ranked fourth in importance is the opportunity to discuss the course content with colleagues. Huczynski and Lewis (1980) reported the results of a study conducted by Jones and Rogers which found that the key individuals who influenced learning were the participants' peers and that support for innovations from work colleagues was important in applying new ideas.

The supervisor's involvement in an employer services training course ranked low in importance as a facilitating factor. In fact, less than 50% of the supervisors in the Quebec region had the opportunity to be trained in a specially designed employer services course when this research was conducted. It follows, therefore, that the supervisors might experience difficulty discussing with participants how to integrate the new learning in their job duties thus explaining the low ranking given to this particular factor.

The need to create conditions in which trainees can apply what they have learned on a training course has been recognized for some time. Huczynski and Lewis (1980) concluded that the organization, operating through the supervisor, can definitely enhance the strength of transfer. In this study, the organization, through the work environment and the supervisor, can be seen as the common denominator facilitating the use of the new learning. In the case of the 11 non-experimenters, the same factors appeared to inhibit the learning and transfer process. The organization acts on the participant before and after the training and thus plays a vital part in the process of plearning transfer.

4.5 OTHER FACTORS WHICH ENHANCE TRANSFER

Research question # 6: Are there any other factors which enhance transfer?

The results shown in Table 4.6 indicate that the relevance of the new learning is the most important facilitating factor in the transfer process. This fact supports several researchers (Ehrenberg, 1983; Kelley, Orgel and Baer, 1985; Trost, 1985; Zemke and Gunkler, 1985) whose findings show that when training content is realistic and is relevant to the job, transfer attempts are more likely to take place.

Among the other reasons cited, the opportunity to practice the new learning appeared to be an important factor. This opportunity came in the form of external industrial requirements or changes in internal performance and productivity indicators. While some participants indicated increased self-assurance and self-esteem, others indicated the desire for self and performance improvement as motivating factors to experiment with aspects of the new learning. The chance to interact with other counsellors who had taken the training as well as to present parts of the course content to work unit colleagues were identified as yet other factors which facilitated the use of the new learning.

5.0 CONCLUSIONS AND RECOMMENDATIONS

5.1 INTRODUCTION

This chapter presents the major conclusions of the study and addresses its policy implications. In addition, recommendations are made for further research.

5.2 CONCLUSIONS

Research question # 1: Do participants achieve the course objective?

- 1. Sixty participants achieved the course objective and did acquire the intended learning; two did not.
- Research question # 2: Which skills developed and knowledge acquired by participants in training are transferred to the job?
- 2. Negotiation skills, hiring practices and procedures, identifying employers' needs, explaining the advantages of human resource planning and identifying companies that could benefit from human resource planning are the major skill and knowledge areas developed in training and used on the job by the 51 participants who experimented with the new learning.
- 3. The most important effects of training were the acquisition of new approaches and new techniques and the acquisition of new learning.

Research question # 3: What is the importance of learner characteristics in enhancing transfer?

Motivation

4. There is no relationship between motivation as measured here and transfer.

Age

- Older learners had more difficulty developing and applying interpersonal skills.
- 6. Those participants who are older were more likely to develop and apply other skills such as negotiation skills in the workplace.

Education

Education was not found to impact on transfer.

Experience

8. No significant relationship between experience and transfer was found.

Previous training

9. Participants who had been involved in other training were more likely to learn and transfer knowledge-related content than their counterparts with no previous training experience.

Research question #4: What is the importance of participants' perceptions of training in enhancing transfer?

10. Very little relationship between factors related to participant perceptions of training and subsequent transfer was found.

Research question #5: What roles do the work environment and the supervisor play in the transfer process?

11. The important facilitating factors to use the new learning were definitely the organization through the work environment and the supervisor. Trainees must have the conditions in which they can apply what they have learned.

Research question # 6: Are there any other factors which enhance transfer?

12. The relevance of the new learning to the job is the most important facilitating factor in the transfer process.

As a result of an understanding of the current literature and these data, major conclusions may be summarized as follows:

- The participants are developing skills and acquiring knowledge on training. These skills and knowledge are being transferred to the job.
- Learner characteristics (motivation, age, level of education, experience and previous training) and participant perceptions of training have minimal impact as factors in the transfer of learning process.
- . The pertinence and direct applicability of the new learning to the job is the most important factor enhancing the transfer of training.
- . The supervisor, in the role of coach, champion, supporter and facilitator of the learning/transfer process, is very important if experimentation and transfer are to occur.
- . Human resource planning in job assignment following training impacts the transfer process.

The conclusions of this study can best be illustrated using an adaption (Figure 5.1) of the Huczynski and Lewis (1980) model derived from the data produced in their study. The model suggests that the motivation can be enhanced if the individual receives pre-course information and can discuss the aims and objectives of the course with the supervisor.

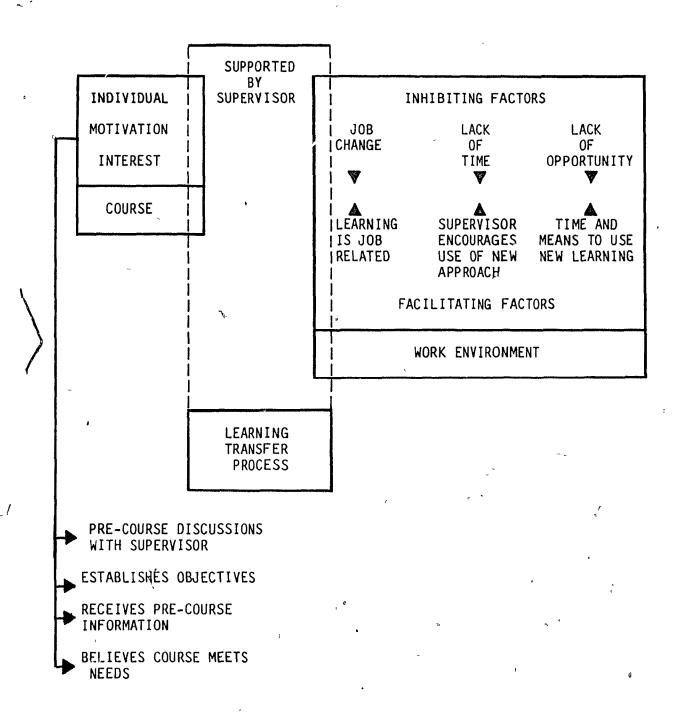
Discussions could also include how and when the new learning could be applied to the job. The training transfer process is further enhanced if the supervisor supports the new learning. Finally, the work environment contains inhibiting and facilitating forces in terms of the application of the new learning. It is obvious that the supervisor plays a major role in all phases of the learning process.

5.3 POLICY IMPLICATIONS

The conclusions of this study indicate that training is resulting in favorable changes in the on-the-job behavior of most of the participants. The conclusions also attest to the fact that the workplace is indeed a rich source of data from which existing programs can be assessed and future needs derived. One simply cannot subtitute data about and derived from the workplace. Management has to plan interventions to support increased transfer of training. More specifically it must:

- 1. Ensure that course information and training objectives are discussed between the supervisor and the future participant. This presupposes that supervisors are aware of course content and objectives.
- 2. Ensure that supervisors are prepared to listen to new ideas and allow experimentation.
- Ensure that trainees have the opportunity to use the new learning.
- 4. Ensure that trainees have the job assignment to use the new learning.

FIGURE 5.1:
FACTORS AFFECTING THE TRAINING TRANSFER PROCESS



- 5. Ensure that the training program is revised periodically strengthening the content areas that appear to be low in impact and transfer importance such as labor-market information and preparing/evaluating employer contacts.
- 6. Ensure that future training programs reinforce the content areas that are high in impact and transfer importance such as negotiation skills, identifying employer needs, hiring pratices and procedures and human resource planning.
- 7. Ensure that future training programs stress the acquisition of new approacnes and techniques in their objectives.
- ** 8. Ensure that new learning is relevant to the job. What a participant transfers is determined by the value put on the course and the learning gained.
 - 9. Ensure the creation of a training data base for further inquiry, for marketing and public relations and for on going research into training needs and results.
 - 10. Ensure that transfer evaluation be an integral part of any course design. This kind of planning will identify potential benefits to the organization and will ultimatly impact on the organization as a whole.
 - 11. Ensure and encourage continued study in the area of usage outcomes, impact on the organization and improving the work environment to encourage transfer.

5.4 SUGGESTIONS FOR FURTHER STUDY

The present study examined participants' perceptions of the factors affecting the transfer of training. Recommendations for further research include a more in-depth empirical examination of these factors as perceived by supervisors, management and employer clients.

Like most research, the current study raised many related questions. The whole area of impact on the organization, that is, the relationship between the application of the training concepts and their impact on the organization as a whole. The question could be asked this way: does the application of the training concepts have an impact on the organization? If not, why not? It would be worthwhile to examine the question of transfer from the supervisor's perspective. Is there a relationship between the supervisor's involvement in the area of employer services and what the counsellor trainee transfers? It would be interesting to explore the question of transfer from the employer client's perspective. After all, employers participate in the needs analysis; it would be natural that they participate in the evaluation of training from the job performance point of view. It would also be worthwhile to conduct a tracer-study of participants and their supervisors one year after the training in order to evaluate the transfer process.

In conclusion, this study was not intended to be a complete document on training as a whole. It delt with one training program in one large organization. It is necessary therefore, to interpret with caution the findings. Its value relates to what was found in limited, real life circumstances. It supports the literature on the subject of the important roles played by the work environment and the supervisor in the transfer process. The study really represents an effort to understand the transfer process as it exists in CEIC. Understanding what is being learned, what is being transferred and the forces which influence training transfer hopefully will provide insight into the training process in the CEIC environment.

REFERENCES

- Azavedo, Rose E., & Patrick, R. (1978, October 31-November 2). A model for assessing the productivity impact of management training. In R.O. Peterson (Ed.), Determining the payoff of management training, Research papers and discussions presented at the American Society for Training and Development, first annual invitational research seminar, Pomona, California, 113-150.
- Brethower, Karen S., & Rumler, Geary A. (1977, Fall). Evaluating training. Improving Human Performance Quarterly (NSPI), 5 (3-4), 103-120.
- Broad, Mary J. (1982, May). Management actions to support transfer of training. Training and Development Journal, 124-130.
- Brown, Mark G. (1983, March). Understanding transfer of training. Performance and Instruction Journal (NSPI), XXII (2), 5-7.
- Catalanello, Ralph F., Kirkpatrick, Donald L. (1968 May). Evaluating training programs The state of the art. Training and Development Journal, 2-9.
- Clark, Ruth Colvin. (1986, November). Nine ways to make training pay off on the job. Training, pp. 83-87.
- Dunn, S., & Thomas, K. (1985, April). Surpassing the "Smile-sheet" approach to evaluation. Training, pp. 56-59.
- Eckenboy, Cliff. (1983, July). Evaluating training effectiveness: A form that seems to work. Training, pp. 56-59.
- Ehrenberg, Lyle M. (1983, February). How to ensure better transfer of training. Training and Development Journal, 81-83.
- Georgenson, David J. (1982, October). The problem of transfer calls for partnership. Training and Development Journal, 75-78.
- Hoffman, Frank O. (1983, September). Training technology's next frontier: On-the-job performance objectives. Training, pp. 57-59.
- Hoffman, Frank O. (1985, August). The hierarchy of training objectives. Personnel, 12-16.
- Huczynski, A.A., & Lewis, J.W. (1980, May). An empirical study into the learning transfer process in management training. <u>Journal of Management</u> Studies, 17, 227-240.
- Katz, Robert. (1956, July-August). Human relations skills can be Sharpened. Havard Business Review, (4), 61-72.

- Kelly, A., Orgel, Robert F., & Baer, Donald M. (1984, August). Evaluation: The bottom line is closer than you think. <u>Training and Development</u> Journal, 32-37.
- Kelly, A., Orgel, Robert F., & Baer, Donald M. (1985, November). Seven strategies that guarantee training transfer. <u>Training and Development</u> Journal, 78-82.
- Kent, Robert H. (1982). Transfer of training without the boss. <u>Journal of</u> European Industrial Training, 6 (3), 17-19.
- Kirkpatrick, Donald L. (1967). Evaluation of Training. In Robert L. Craig (Ed.). Training and Development Handbook, McGraw-Hill. (pp. 18-1 18-27).
- Kirkpatrick, Donald L. (1969, September-October). Evaluating a training program for supervisors and foremen. The Personel Administrator, American Society for Personel Administration, 14 (5), 29-38.
- Lippert, Fred G. (1983, June). Responsibilities of a supervisor. Transfer agent? Supervision, 45, 16-17.
- Mechner, Francis. (1978, September). It's time trainers stopped confusing performance change with behavior change. Training, pp. 110-113.
- Michalak, Donald F., & Yager, Edwin G. (1979). Making the training process work. New York: Harper & Row.
- Michalak, Donald F. (1981, May), The neglected half of training. <u>Yraining</u> and Development Journal, 22-28.
- Moon, G.G., & Hariton, Theodore, (1958, November-December). Evaluating an apprisal and feedback training program. Personnel, 36-41.
- Preziosi, Robert C., & Legg, Leslie M. (1983, May). Add "then" testing to prove training's effectiveness. Training, pp. 48-49.
- Public Service Commission of Canada, Staff Development Branch. (1982). Systems approach to training. Hull, Québec: Author.
- Quinn, Susan R., & Karp, Shelley. (1986, May). Developing an objective evaluation tool. Training and Development Journal, 90-92.
- Reich, Larry J. (1979, August). Skills training A pratical approach. Training and Development Journal, 24-26.
- Ricks, Don, (1979, September). Train for survival in the post-training environment. Training, pp. 24-25.
- Robinson, Dana Gaines, & Robinson, James C. (1985, January). Breaking barriers to skill transfer. Training and Development Journal, 82-83.

- Salinger, Ruth D. (1978, October 31-November 2). Measuring behavorial change with results from training. In R.O. Peterson (Ed.), Determining the payoff of management training, Research papers and discussions presented at the American Society for Training and Development, first annual invitational research seminar, Pomona, California, 113-150.
- Stark, Chris. (1986, March). Ensuring skills transfer: A sensitive approach. Training and Development Journal, 50-51.
- Stroud, Peggy V. (1959, November-December) Evaluating a human relations training program. Personnel, 52-60.
- Trost, Arty. (1985, January). They may love it but will they use it?. Training and Development Journal, 78-81.
- Universalia. (1986). CIDA NAMBOARD storage project. Training component.

 An impact assesment of depot operations workshops.
- Universalia. (1988). Carribean airports project mid project evaluation, Volume 1, Prepared for Canadian International Development Agency.
- Wehreberg, Stephen B. (1983, August). Evaluation of training: Part. I. Personnel, 608-610.
- Wehreberg, Stephen B. (1983, September). Evaluation of training: Part. II. Personnel, 698-702.
- Zemke, Ron, & Gunkler, John. (1985, April). 28 techniques for transforming training into performance. Training, pp. 48-63.
- Zenger, John H., & Hargis, K. (1982, January). Assessing training: It's time to take the plunge! Training and Development Journal, 11-16.

APPENDIX I

PILOT STUDY QUESTIONNAIRE

Employeet
Immigration Canada
Direction de la prestation
des services d'emploi
C.P. 7500, Succursale A
Montréal, Qué.
H3C 3L4

Votre reference - Your file

Notre reference. Our file

Montréal, le

Cher ...,

Vous avez terminé avec succès la formation Services aux entreprises: Composante A. En tant qu'experte-conseil responsable de ce programme, je ressens maintenant le besoin d'évaluer l'impact qu'a eu la formation sur votre travail et par la suite, si nécessaire, faire des recommandations pour l'avenir de cette formation.

Comme participant à cette formation, vous êtes la seule personne à pouvoir me renseigner et me dire si la formation a répondu à vos attentes et a résulté en une amélioration de votre rendement au travail. Pour ce faire, vous trouverez ci-joint, copie d'un questionnaire adressé aux conseillers qui ont terminé la formation depuis six mois.

J'espère, grâce à votre collaboration, pouvoir de nouveau améliorer ce programme pour le bénéfice des futurs participants. Vos réponses seront traitées confidentiellement et vous n'êtes pas tenus de vous identifier.

Veuillez, s'il-vous-plaît, me retourner le questionnaire dans l'enveloppe ci-jointe d'ici le 27 mars 1987. Si vous avez des questions, n'hésitez pas à me contacter au numéro de téléphone suivant: (514) 283-3656. Quinze minutes de votre temps seront grandement appréciées et les futurs participants au cours vous en seront sûrement reconnaissants. Merci beaucoup.

Carole Ann Algranti

p.j.

QUESTIONNAIRE

SULVI - POST-FORMATION

POUR LES CONSEILLERS/ÈRES EN EMPLOI

QUI ONT TERMINE LE COURS:

SERVICES AUX ENTREPRISES

COMPOSANTE A

DIRECTION DE LA PRESTATION DES SERVICES D'EMPLOI 1987

SUIVI - POST FORMATION

TITRE DU COURS:

Services aux entreprises - Composante "A"

OBJECTIF DU COURS:

Jamais

Habiliter les conseillers en emploi à établir des contacts

plus fructueux avec les employeurs.

NOUS AIMERIONS QUE VOUS COMPLÉTIEZ CE QUESTIONNAIRE QUI NOUS PERMETTRA D'ÉVALUER L'IMPACT DU COURS DE FORMATION - SERVICES AUX ENTREPRISES, COMPOSANTE "A" SUR VOTRE TRAVAIL.

SOYEZ FRANC ET HONNÊTE DANS VOS RÉPONSES. PAS NÉCESSAIRE DE VOUS IDENTIFIER ET VOS RÉPONSES SE-RONT TRAITÉES CONFIDENTIELLEMENT PAR L'ÉQUIPE RÉGIO-NALE DE LA FORMATION.

IL EST IMPORTANT DE LIRE ATTENTIVEMENT CHACUNE DES QUESTIONS ET LES INSTRUCTIONS.

A la fin du cours, Services aux entreprises - Composante "A", à quel point A) pensiez-vous avoir atteint l'objectif ci-haut mentionné?

Très peu Moyen Beaucoup 2 3 1 5

Si vous avez encerclé 1 ou 2 à la question /A, arrêtez ici et retournez nous le questionnaire, si non continuez.

B) Depuis cette formation, à quelle fréquence avez-vous utilisé, dans votre emploi, les habiletés et connaissances pratiquées en classe?

Occasionnellement

2 3 5

- 82

Souvent

Pas d'améliorati	on	Certaines améliorations		Beaucoup d'amélioratio
1	2	3	4	5
	ıs avez encercl uez aux questic	é 3 ou plus aux ons D et E.	questions B ou	С,
	s avez encercl	é 2 ou moins aux F.	questions B ou	С,
1				
naissances p	ratiquées en cl	stances ou vous av lasse. Démontrez sur votre rendeme	aussi l'impact	
	(,			1
		favorisé, dans vo pratiquées en for		application des
Mon s	uperviseur a di nnaissances dan	scuté avec moi la ns mon travail.	façon d'intégr	er les habilet
			**	
	uperviseur étai	t favorable à l'u	tilisation de l	a nouvelle app

E)	(Suite)
		Les habiletés développées et connaissances acquises étaient directement reliées à mon travail.
		Autres. Veuillez énumérer les autres facteurs qui ont favorisé l'application des habiletés développées et connaissances acquises.
F)		les raisons qui pourraient expliquer pourquoi vous n'avez pas pu uer les habiletés développées et connaissances acquises.
		Mon superviseur n'a pas exigé que je les utilise.
		Mon superviseur n'était pas au courant de ce que j'ai appris en formation.
		Mon superviseur s'est opposé à l'utilisation de la nouvelle approche.
		Mon superviseur n'était pas d'accord avec le contenu du cours de formation.
		On ne m'a pas accordé ni le temps, ni les outils pour les appli-
		quer. Mes tâches ont changé.
		Le moment choisi pour la formation n'était pas propice.
		Autres. Veuillez énumérer les autres facteurs qui vous ont empêché d'appliquer les habiletés développées et connaissances acquises.

APPENDIX II

PARTICIPANT MOTIVATION QUESTIONNAIRE

FORMATION - SERVICES AUX ENTREPRISES Composante "A"

Comme participant/e à ce cours, vous êtes la seule personne à pouvoir me renseigner et me dire si la formation répond à vos attentes et vos besoins et résulte en une amélioration de votre rendement au travail. J'espère, grâce à votre aide, pouvoir encore améliorer ce programme pour le bénifice des futurs/es participants/es.

Ce questionnaire, l'évalution de la formation, ainsi que le questionnaire que je vais vous faire parvenir après la fin de votre cours, portent un code d'identification. Dans la compilation statistique, seuls les codes numériques seront utilisés. Ainsi, votre anonymat est assuré.

Vos réponses seront toujours traitées confidentiellement et serviront aux fins de ma recherche sur le programme.

Carole Ann Algranti.

Je vous demande votre opinion sur chacun des énoncés suivants en indiquant votre accord ou votre désaccord. Par exemple, si vous êtes totalement en accord, cochez la case sous ce titre. Si vous êtes d'accord, cochez la case sous ce titre et ainsi de suite.

1	Totalement en accord	En accord	Indifférent	En désaccord	Totalement en désaccord
 Je suis très confortable dans l'accomplissement de mes tâches. 					
 Je suis très motivé/e à être ici en formation. 			. 🗆		
 Je crois que ce cours peut bien répondre à mes besoins. 			86 -		

-APPENDIX III

FACTOR ANALYSIS MOTIVATION

- 87 -

PO16-MGI 1001-UNIVERSALIA - CAROL ANN ALGRANTI UNI PRO94 - QUESTIONS 1, 2, 3

13:53 Monday, January 11, 1988

Rotation Method: Varimax Rotation not possible with 1 factor.

Orthogonal Transformation Matrix

1.00000 1

Rotated Factor Pattern

FACTOR1

0.81922 **◆** 0.79097 -0.19367 P9402 P9403 P94Q1

Variance explained by each factor

FACTOR1 1.334275

Final Communality Estimates: Total = 1.334275

P94Q1 0.037509 P9402 P9403 0.671127 0.625640

APPENDIX IV

PARTICIPANT PERCEPTIONS OF TRAINING QUESTIONNAIRE

- 89 -

EVALUATION DE LA FORMATION - COMPOSANTE "A" - SERVICES AUX ENTREPRISES

Nous aimerions que vous complétiez ce questionnaire qui nous permettra de revoir et d'améliorer le contenu de ce cours. Soyez franc et honnête dans vos réponses. Il n'est pas nécessaire de vous identifier et vos réponses seront traitées confidentiellement par l'équipe régionale de la formation.

Il est important de répondre à toutes les questions.

INF	INFORMATIONS GÉNÉRALES										
	كمي		,								
1-	Age:										
	20-30		•								
	31-40										
	41-50										
	51-64	s		,							
2-	Scolarité	۹,	٠	•							
	Secondaire	1 🔲	inachevée								
	,	2 🔲	ache vée	,							
	Collégial	1 📋	inachevée								
		2 🔲	achevée								
	Universitaire	1	inachevée								
	ler cycle			ł							
		2 🗌	ache vée								
	Universitaire	1 🔲	inachevée								
3	2e ou 3e cycle	2 🖂	achevée								

3-	Expérience de trava	ail com	me conseille	er en emp	oloi		
	6 mois ou moins		†			•	ý "s
5	6 mois à un an		\i			-	
•	1 à 5 ans		,	•			A
	5 à 10 ans		*				
	10 ans et plus :				•		
4-	Au cours des deux of formation, indiquez cours).	lernièr : la dù	es années, s rée <u>totale</u> d	si vous a de ces co	avez suiv ours (exc	i un ou de lure le pr	s cours de ésent
	aucun	:					
	0 - 2 semaines	:				,	
	2 - 4 semaines	:	□ . '		ţ		
	4 - 6 semaines	:		,			•
	plus de 6 semaines	:				f	
LA F	ORMATION						1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
tre coch	ous demande votre op accord óu votre désa ez la case sous ce t e et ainsi de suite.	ccord.	Par exemp	le, si vo	ous êtes	totalement	en accord,
	•	1	Totale- ment en accord	En accord	Indif- férent	En désaccord	Totale- ment en désaccord
5-	J'ai reçu l'informa concernant le cours que celui-ci ne déb	avant					
6-	Mes objectifs de fo tion ont été fixés de venir en formati	avant					<u> </u>

	**	Totale- ment en accord	En accord	Indif- férent	En désaccord	Totale- ment en désaccord
7-	Le contenu du cours ré- pond à mes besoins.					
8-	La formation couvre une matière que je peux uti- liser en cours d'emploi.					
9-	Le rythme de la formation a été approprié.					
10-	La formation avait un juste degré de difficul- té.					
11-	La formation était bien organisée.					
12-	J'ai travaillé fort pen- dant la formation.				Ü	
13-	Les présentations de con- tenu étaient claires.					
14-	Le matériel pédagogique était utile.					
15-	La formation incluait as- sez d'exercices prati- ques.					
16-	Il y a eu suffisamment de cours magistraux.					
17-	Il y a eu suffisamment de discussions de groupe.					
18-	J'ai reçu suffisamment de feedback (rétroaction) sur mon rendement au cours.					-[]

		Totale- ment en accord	En accord	Indif- férent	En désaccord	Totale- ment en désaccord
19-	Il y avait suffisamment d'occasions durant le cours pour donner du feedback aux animateurs.					
20-	Les animateurs étaient bien préparés.					
21-	J'ai appris beaucoup lors de cette formation.					
22-	Ce cours m'a permis de prendre conscience de certaines caractéristi- ques de mon comportement face à un employeur.					
23-	Je me sens maintenant plus confiant face aux exigences de mon travail.		□ ·			I
24-	Je serai plus efficace grâce à cette formation.			, 🔲		
25-	En général, la formation valait le temps et l'é-nergie investis.					
26-	Je recommanderais cette formation à mes confrères de travail.				- 🗆	

	lésaccord, ou	50 (J		ora.						
					1		ß				
										,	
											
					· · · · · · · · · · · · · · · · · · ·	-			·		
							,				
				•							
				4					· · · · · · · · · · · · · · · · · · ·		· · · · · · · · · · · · · · · · · · ·
					· · · · · · · · · · · · · · · · · · ·	^				·	
ONC	LUSION	•		•							
9-	En général,	۱a	formation	n était:							
	excellente	:			,moyenne °	-	:		•		
	très bonne	:			pauvre		:		3		
	bonne	:			perte de	temps	:				
cri	vez les comm	enta	aires et s	uggestio	ns suscept	ibles o	i'en	richi	r cett	e.	2
orm	ation.								3	•	Í
	,										
		,								·	
										~	
											r

				,							,

MERCI DE VOTRE COLLABORATION

APPENDIX V

FACTOR ANALYSIS

PERCEPTIONS OF TRAINING

PO18-MGI 1001-UNIVERSALIA - CAROL ANN ALGRANTI

14:13 Monday, January 11, 1988

P93015

UNI PRO93 - QUESTIONS 5 THROUGH 26 INCLUSIVE

Orthogonal Transformation Matrix

Rotation Method: Varimax

	1	2	ε	4	5	6	7	8	9		
1	0.60367	0.39701	0.38446	0.27327	0.17296	0.34400	0.18293	0.20730	0.17550		
1 2 3 4	-0.52295 0.49838	-0.17892 -0.36101	0.39552 -0.33073	0.45860 0.10176	0.45746 0.44825	-0.05791 -0.24142	-0.15761 -0.39402	0.17285 0.23955	0.24579 -0.17237		
4	-0.14461	0.52047	-0.01553	-0.49930	0.63175	-0.02549	-0.11629	-0.19105	-0.09424		
, 5 6	-0.02190	-0.16103	-0.28978	0.0331B	0.32940	-0.18309	0.85702	0.06232	0.09009		
7	-0.19823 0.12081	0.58967 0.04696	-0.38642 0.51409	0.43643 -0.26945	-0.14209 -0.15060	-0.24202 -0.73033	-0.03826 0.08478	0.35835 0.28013	-0.25411 -0.06772		
9	0.06445	-0.04692	0.26564	°0.34639	0.09162	-0.07148	0.13104	-0.52193	-0.70711		
9	-0.18518	-0.17640	0.13413	-0.26682	0.03175	0.43450	0.11229	0.59168	-0.54122		
Rotated Factor Pattern											
	FACTOR1	FACTOR2	FACTOR3	FACTOR4	FACTOR5	FACTOR6	FACTOR?	FACTORB	FACTOR9		
P93Q23	0.82005	0.06549	0.11605	0.12901	0.02081	-0.02063	-0.03205	0.22873	0.00304		
P93Q24 P93Q22	0.79463	0.15666	0.17707	0.09236	0.00495	0.12816	0.16820	-0.00518 -0.05696	0.27414 -0.13209		
P93026	0.66234 0.64183	0.28445 0.39072	0.18623 0.13123	0.09947 -0.03740	0.07978 0.13545	0.34394 0.28179	-0.00829 0.29249	0.17312	-0.13207		
P93025	0.61460	0.40994	0.19478	-ŏ.ŏBo3ŏ	0.01020	0.34672	0.21253	0.26256	0.15974		
P93Q1B	0.60482	-0.07077	-0.09161	.0.43377	0.20725	0.04841	-0.01907	0.26157	-0.00935		
P93Q21 P93Q12	0 .52191 0.16387	0. 45 923 0.7 3 926	0.30090 0.02026	-0.05127 0.00506	0.07964 -0.03156	0.29506 0.06855	0.24917 0.09115	-0.02861 -0.05645	0.26358 -0.07181		
P93010	0.27002	0.62007	0.26713	0.30138	0.15063	0.11321	-0.02955	0.16732	0.22578		
P93Q16	0.11594	-0.00717	0.72698	0.17283	0.13029	0.07463	0.04102	-0.04732	0.10544		
P93020	0.26875	0.26383	0.63420		0.01578	0.19364	0.01290	0.12288	0.06118		
F93Q11 P93Q14	0.04922 0.12774	0.41358 0.09928	0.45751 0.23637	0.24162	0.10609 0.02624	0.20144 0.22026	0.07873 0.19360	0.35862 0.11163	0.22685 0.24983		
P93Q13	0.13272	0.14193	0.45620	0.59528	0.02824	0.08979	0.17380 0.0247B	0.26400	-0.00860		
P93Q17	0.08675	0.06515	0.22837	-0.02027	0.78654	0.01440	0.04235	0.12211	0.11517		
P93Q15	0.04B40	0.00387	-0.03454	0.11607	0.73233	0.01621	-0.07627	0.00586	0.0325B		
P93Q7	0.32893	0.36449	0.12590	0.22215	0.16808	0.65396	0.06651	0.02401	-0.01775		
P93Q8 P93Q5	0.23691	0.02549	0.32767	0.19647 0.11702	-0.10741	0.64198 0.03575	0.06912 0.72966	0.06346 0.05136	0.35007 0.19261		
P9306	-0.04177 0.19339	0.15669 -0.01001	0.14434 -0.06718	0.02175	0.10644 -0.13922	0.03373	0.65205	-0.0217B	-0.08708		
P93019	0.30064	0.00194	0.06169	0.22216	0.11535	0.02362	0.01462	0.59472	0.07257		
P9309	0.05068		0.16048	0.17175	0.24754	0.11093	0.05486	0.08818	0.42162		
			Varianc	e explaine	d by each	factor		· >			

FACTOR6 FACTOR7 **FACTORB** FACTOR9 FACTOR1 FACTOR2 FACTOR3 FACTOR4 FACTOR5 1.940840 1.487189 1.458995 1.438006 1.255482 0.867153 0.754383 2.010665 Final Communality Estimates: Total = 14.911276 P93011 0.679265 P93Q7 0.767474 P93Q9 P93Q10 0.320139 0.734945 P93Q12 0.596139 P93Q13 0.710232 P93Q14

P9305 0.645569 P9306 0.497077 0.764357 0.757769 0.560499 P93022 0.709602 P93025 0.850111 P93Q21 0.802239 P93023 0.761090 P93Q18 0.681538 F93026 P93016 F93017 0.815782 0,813004

APPENDIX VI

TRANSFER OF TRAINING QUESTIONNAIRE

Emploi et Employment and Immigration Canada Immigration Canada Direction de la prestation des services d'emploi C.P. 7500, Succursale A

Montréal, Qué. H3C 3L4

Notre reference. Our file

Votre reference Your file

Montréal, le

Cher ...,

Vous avez terminé avec succès la formation Services aux entreprises: Composante A. En tant qu'experte-conseil responsable de ce programme, je ressens maintenant le besoin d'évaluer l'impact qu'a eu la formation sur votre travail et par la suite, si nécessaire, faire des recommandations pour l'avenir de cette formation.

Comme participant à cette formation, vous êtes la seule personne à pouvoir me renseigner et me dire si la formation a répondu à vos attentes et a résulté en une amélioration de votre rendement au travail. Pour ce faire, vous trouverez ci-joint, copie d'un questionnaire adressé aux conseillers qui ont terminé la formation depuis six mois.

J'espère, grâce à votre collaboration, pouvoir de nouveau améliorer ce programme pour le bénéfice des futurs participants. Vos réponses seront traitées confidentiellement et vous n'êtes pas tenus de vous identifier.

Veuillez, s'il-vous-plaît, me retourner le questionnaire dans l'enveloppe ci-jointe d'ici le 18 décembre 1987. Si vous avez des questions, n'hésitez pas à me contacter au numéro de téléphone suivant: (514) 283-3656. Quinze minutes de votre temps seront grandement appréciées et les futurs participants au cours vous en seront sûrement reconnaissants. Merci beaucoup.

Carole Ann Algranti

p.j.

QUESTIONNAIRE

SUIVI - POST-FORMATION

POUR LES CONSEILLERS/ERES EN EMPLOI QUI ONT TERMINÉ LE COURS:

SERVICES AUX ENTRÉPRISES

COMPOSANTE A

DIRECTION DE LA PRESTATION DES SERVICES D'EMPLOI

1987

SUIVI - POST-FORMATION

TITRE DU COURS: Services aux entreprises - Composante A

OBJECTIF DU COURS: Habiliter les conseillers en emploi à établir des contacts plus fructueux avec les employeurs.

NOUS AIMERIONS QUE VOUS COMPLÉTIEZ CE QUESTIONNAIRE QUI NOUS PERMETTRA D'ÉVALUER L'IMPACT DU COURS DE FORMATION - SERVICES AUX ENTREPRISES, COMPOSANTE A SUR VOTRE TRAVAIL.

SOYEZ FRANC ET HONNÊTE DANS VOS RÉPONSES. IL N'EST PAS NÉ-CESSAIRE DE VOUS IDENTIFIER ET VOS RÉPONSES SERONT TRAITÉES CONFIDENTIELLEMENT PAR L'ÉQUIPE RÉGIONALE DE LA FORMATION.

IL EST IMPORTANT DE LIRE ATTENTIVEMENT CHACUNE DES QUESTIONS ET LES INSTRUCTIONS.

A) A la fin du cours, Services aux entreprises - Composante A, à quel point pensiez-vous avoir atteint l'objectif ci-haut mentionné?

Très peu . Moyen Beaucoup

1 2 3 4 5

Si vous avez encerclé 1 ou 2 à la question A, arrêtez ici et retournez-nous le questionnaire, si non continez.

B) Depuis cette formation, à quelle fréquence avez-vous utilisé, dans votre emploi, les habiletés et connaissances pratiquées en classe?

Jamais Occasionnellement Souvent

2 3 4 5

Si vous avez encerclé 3 ou plus à la question B, continuez aux questions C, D et E.

Si vous avez encerclé 2 ou moins à la question B, passez à la question F.

C) Veuillez indiquer l'impact qu'aura eu cette formation au niveau des connaissances, habiletés et capacités tel qu'exprimées dans la liste qui suit. Pour cela, évaluez-vous en termes comparatifs selon le niveau de vos connaissances, habiletés et capacités, avant la formation et après celle-ci. Cochez la case qui vous convient le mieux selon les énoncés suivants:

	-	Grande amélio- ration	amēlio- ration légère	pas de change- ment	incer- tain	ne s'ap- plique pas
3	Habileté à interpréter des messages non-verbaux	[_l	ı <u>_</u> ı	ı_ı	ı <u>_</u> ı	<u> </u>
4	. Habileté à écouter	<u> </u>	J <u>O</u>	1_1	1 <u></u> 1	Ū.
5	. Habileté à être empathiqu	ıe <u> </u>	I <u>_</u> I -	, U.,	~ _	<u>I</u>
6	. Habileté à utiliser des techniques d'entrevue	Ü	O ,	Ĺ	Ü	O·
7	. Habileté à négocier		1_1	<u> </u>	<u> </u>	<u> </u>
. 8	Capacité de planifier et d'organiser mon travail	1 <u>_1</u>		<u> </u>	∮ 1_1	<u> </u>
9	. Capacité d'identifier des besoins d'employeurs	; <u>[</u>]	. []	ijŢ		
10	. Capacité d'aider les em- ployeurs à résoudre leurs problèmes	, I <u>_</u> I	<u> </u>	[∫] 1 <u></u> 1 .	I <u>_</u> I	<u> </u>
11	. Capacité de comprendre de inquiétudes des employeur	es <u>_</u> 's		ι <u>΄</u> Ι	ا <u>_</u> ا م	0
12	Connaissance des besoins des employeurs en forma- tion sur le marché du travail	1 <u>_</u> 1		<u></u>	<u>"</u>	. 🗆

		Grande amélio- ration	amello- ration légère	pas de change- ment	incer- tain	ne s'ap- plique pas
13.	Connaissance des principes du processus d'embauche	′ l <u>_</u> l		1_1	<u> </u>	_[
14.	Capacité d'identifier des c treprises qui pourraient bi néficier de la planification des ressources humaines	é-	1 <u>_</u> 1	1 <u></u> 1	ı <u>□</u> ı	<u>-</u>
15.	Capacité de renseigner les entreprises sur les bénéfi- ces de la planification de ressources humaines	- 1-1	Ū,	i_i	1 <u>□</u> 1	
16.	Connaissance de la prépara- tion d'un contact avec un dirigeant d'entreprise	- , <u> </u> _	Ō	· I <u></u> I		
17.	Capacité d'évaluer un con- tact avec un dirigeant d'entreprise	· [_]			Ü	I <u></u> I
18.	Capacité d'effectuer des visites intéressantes et fructueuses	. []	Ċ		i <u> </u> i	<u> </u>
19.	Connaissance de mon rôle comme conseiller en emploi	Ш,			<u> </u>	ĘĨ.
20.	Connaissance de la mission de la CEIC	<u> </u>	<u> </u>		Ü	1_1
	Utilisation des outils et instruments de travail	I <u>_</u> I	1_1	<u> </u>	1_1	1 <u>_</u> 1
	Confiance face à un diri- geant d'entreprise	<u> </u>	l <u>_</u> l - 103 -	, <u>'</u> []	I <u>_</u> I	<u>"</u> I

- 4 - 4

D.	Si, selon vous, cette session de formation s'est avérée rentable dans votre co texte de travail, veuillez indiquer par ordre d'importance sur une échelle de à 5 (1 étant le plus important) la priorité que vous accordez à chacun des itersuivants:	n- 1 ms						
1_1	Acquisition de nouvelles connaissances							
<u> </u> _	Acquisition de nouvelles approches et nouveaux moyens et techniques							
I <u>_</u> I	Introspection et meilleure connaissance de moi-même							
t _1/	Interaction avec d'autres conseillers en emploi							
1_1	Changement d'attitude face à mes clients-employeurs							
Auti	· ·							
Auti	•	_						
		_						
		_						
		_						
		,						
	,							

E) Cochez les raisons qui ont favorisé, dans votre emploi, l'application des habi- letés et connaissances pratiquées en formation.
J'ai reçu le temps et les moyens nécessaires pour appliquer les habiletés développées et les connaissances acquises.
Mon superviseur était favorable à l'utilisation de la nouvelle approche.
Mon superviseur a discuté avec moi la façon d'intégrer les habiletés et connaissances dans mon travail.
Les habiletés développées et connaissances acquises étaient directement reliées à mon travail.
Mon superviseur a suivi une semaine de formation - Services aux entreprises.
J'ai eu l'occasion d'en parler à mes confrères et consoeurs de travail.
Autres.
euillez énumérer les autres facteurs qui ont favorisé l'application des habiletés léveloppées et connaissances acquises.

F)		z les raisons qui pourraient expliquer pourquoi vous n'avez pas pu appli- les habiletés développées et connaissances acquises en formation.
	<u></u>	On ne m'a pas accordé ni le temps, ni les moyens nécessaires pour appliquer les habiletés développées et les connaissances acquises.
		Mon superviseur s'est opposé à l'utilisation de la nouvelle approche.
-		Mes tâches ont changé.
		Le moment choisi pour la formation n'était pas propice.
		Mon superviseur n'était pas au courant de ce que j'ai appris à la formation.
		Autres. Veuillez énumérer les autres facteurs qui vous ont empêché d'appliquer les habiletés développées et connaissances acquises.
AUT	RES CO	MMENTAIRES:

MERCI DE VOTRE COLL'ABORATION

APPENDIX VII
TRANSFER OF TRAINING ITEMS IN PERCENTAGES

	QUESTION	a signi-	WHO REPO			
No.	Content	ficant improve- ment	a slight improve- ment	no change	uncer- tainty	that it was not appli- cable
3.	Interpretion of non- verbal messages	14%	63%	24%	0%	0%
4.	Listening skillls	31%	51%	16%	0%	2%
5.	Empathy	22%	48%	28%	0%	2%
6.	Interview Techniques	24%	61%	12%	2%	2%
7.	Negotiation skills .	43%	47%	8%	0%	2%
8.	Plan and organize work	20%	53%	24%	2%	2%
9.	Identify employers' needs	31%	53%	16%	0%	0%
10.	Help employers solve problems	25%	61%	8%	2%	4%
11.	Understand employers' concerns	22%	63%	16%	0%	0%
12.	Understand employers' labor market information needs	12%	54%	26%	4%	4%
13.	Hiring practices and procedures	35%	53%	10%	2%	0%
14.	Identify companies that could benefit from human Resource planning	33%	53%	8%	4%	2%

APPENDIX VII Cont'd TRANSFER OF TRAINING ITEMS IN PERCENTAGES

	QUESTION	a signi-	a	ONDENTS	WHO REPO	O REPORTED that it	
No.	Content	ficant improve- ment	slight improve- ment	no change	uncer- tainty	was not appli- cable	
15.	Explain the advantages of human resource planing	43%	41%	Ś%	0%	.8%	
16.	Preparing an employer contact	14%	53%	24%	2%	8%	
17.	Evaluating an employer contact	12%	63%	22%	0%	, 4%	
18.	Conduct interesting and effective visits	20%	61%	14%	0%	6%	
19.	Knowing my role as an employment counsellor	35%	45% .	18%	0%	2%	
20.	Knowing the EIC mission	22%	47%	31%	0%	0%	
21.	Using work-related aids	10%	67%	22%	2%	0%	
22.	Confidence level when dealing with an employer	20%	49%	29%	0%	2% **	
				_			

NOTES:

Variations in totals explained by incomplete questionnaires

Number of respondents = 51 No. = Number

APPENDIX VIII

FACTOR ANALYSIS

TRANSFER OF TRAINING

PO20-MGI 1001-UNIVERSALIA - CAROL ANN ALGRANTI

UNI PRO92 - QUESTIONS 3 THROUGH 22 INCLUSIVE

Rotation Method: Varimax

Orthogonal Transformation Matrix

	1	2	3	4	5	6	7	8 (
1 2 3 4 5 6 7 8	0.47612 0.28209 0.61530 -0.02356 -0.40091 -0.19910 0.09815 -0.32340	0.47493 0.15219 -0.37545 -0.58293 -0.19210 0.09247 0.23441 0.41245	0.30181 -0.60147 0.40847 0.02072 0.10379 0.57005 -0.02251 0.20887	0.41210 -0.41509 -0.17158 0.38928 0.13990 -0.62430 0.20303 0.16236	0.34258 0.16650 -0.46508 0.54183 -0.19699 0.45782 0.00518 -0.31082	0.18588 0.48539 0.17872 0.12049 0.75890 0.11669 0.28843 0.10321	0.27564 -0.21147 -0.18508 -0.42776 0.39402 -0.07110 -0.30814 -0.63782	0.24281 0.23484 0.04081 0.12884 0.04509 -0.09401 -0.84589 0.37581
			Rotate	d Factor P	attern			
	FACTOR1	FACTOR2	FACTOR3	FACTOR4	FACTOR5	FACTOR6 ***	FACTOR?	FACTOR8
P92015 P92021 P92010 P92013 P92022 P92018 P9208 P9204 P9205 F92020 P92019 P9203 P92011 P9207 F92012 P92014 P92017 P92017 P9206 P92016	0.69734 0.50856 0.58476 0.56609 0.13069 0.04349 0.27160 -0.02298 0.20209 0.03255 0.13012 0.28904 -0.11071 0.07469 0.25972 0.23161 -0.03661 0.29084 0.34942	0.17514 0.16484 0.25026 -0.09295 0.72065 0.70127 0.62208 -0.00825 0.06756 0.03135 0.32775 0.00336 0.01809 0.21248 0.13728 0.05283 0.07123 0.20075 0.42096 0.12543	0.03386 0.04607 0.04500 0.18971 0.11771 0.08545 -0.23357 0.79196 0.72783 0.11254 0.05339 0.41907 0.39162 -0.07547 0.06441 -0.18099 -0.05132 0.12402 0.42470 0.05453	0.01864 0.07315 -0.10738 0.35636 0.20751 0.01126 0.00665 0.12311 0.06783 0.76618 0.67427 0.49073 0.42141 0.19828 0.13750 -0.14569 0.12670 0.24564 0.16639 0.02820	0.05477 -0.02463 0.50352 0.21833 0.27785 0.17183 0.01147 -0.00477 0.02138 0.19849 0.11600 -0.27531 0.38024 0.71887 0.49222 -0.14814 0.33319 0.04214 -0.08797 0.03300	0.47188 -0.04399 0.15233 0.00602 -0.10841 0.20801 0.18575 -0.09249 -0.09515 0.03233 -0.20040 0.04979 0.36367 -0.03159 0.06622 0.79629 0.58809 0.10826 -0.08169 0.09092	-0.01890 0.05697 -0.05425 0.01937 0.06273 0.32268 -0.04195 -0.05677 0.31201 0.10685 0.25108 -0.03157 0.08630 0.09351 -0.20934 -0.00558 0.13959 0.75425 0.43979 0.23745	0.04519 0.19470 0.05856 0.16185 -0.03275 0.10982 0.33229 0.07709 -0.02630 0.10378 -0.05334 -0.03113 0.02380 -0.01329 0.41704 -0.04097 0.30562 0.18928 -0.13841 0.69564

Variance explained by each factor

FACTOR1 FACTOR2 FACTOR3 FACTOR4 FACTOR5 FACTOR6 FACTOR7 FACTOR8 2.103212 1.945691 1.862393 1.851612 1.587998 1.542884 1.190990 1.022991

Final Communality Estimates: Total = 13.107771

 P92Q3
 P92Q4
 P92Q5
 P92Q6
 P92Q7
 P92Q8
 P92Q7
 P92Q10
 P92Q10
 P92Q11
 P92Q12

 0.580234
 0.660701
 0.687289
 0.696848
 0.622430
 0.662151
 0.595095
 0.701238
 0.628394
 0.573766

 P92Q13
 P92Q14
 P92Q15
 P92Q16
 P92Q17
 P92Q18
 P92Q19
 P92Q20
 P92Q21
 P92Q22

 0.566354
 0.768147
 0.746523
 0.691251
 0.735575
 0.690076
 0.701346
 0.64369
 0.448688
 0.687296

110

APPENDIX IX

ANOVA

AGE WITH INTERPERSONAL

ANOVA OF P93Q1 (AGE) WITH: OBJ_ACHV EFFORT PROCESS TECHNIQ NEEDS PREPAR MOTIVATE KNOWLEDG PREPARA INTERPER INTERNAL SKILLS EMPLOYEE. COMPARE CELL MEANS

General Linear Models Procedure

Dependent Variabl	e: INTERPER			,	
Source	DF	Sum of Squares	Mean Square	F Value	Pr × F
Model	3	4.01516106	. 1.33838702	4.83	0.0052
Error .	47	13.03630952	0.27736829		
Corrected Total	50	~17.05147059	•		• /
4	R-Square	c.v.	Root MSE		INTERPER Mean
	0.235473	26.140672	0.52665766	~	2.01470588
Source	DF	♣Type I SS	Mean Square	F Value	Pr → F
P93Q1	3	4.01516106	1.33838702	4.83	0.0052
Source	DF	Type III SS	Mean Square	F Value	Pr ∕ F
P9301	3	4.01516106	1.33838702	4.83	0.0052

= 112

. 1

ANDVA OF P93Q1 (AGE) WITH: OBJ_ACHV EFFORT PROCESS TECHNIQ NEEDS PREPAR MOTIVATE KNOWLEDG PREPARA INTERPER INTERNAL SKILLS EMPLOYEE. COMPARE CELL MEANS

General Linear Models Procedure

Duncan's Multiple Range Test for variable: INTERPER

NOTE: This test controls the type I comparisonwise error rate, not the experimentwise error rate

> Alpha= 0.05 df= 47 MSE= _2773683 WARNING: Cell sizes are not equal. Harmonic Mean of cell sizes= 6.970954

Number of Means Critical Range 0.5676706 .59683644 .61629941

Means with the same letter are not significantly different.

Duncan Gr	oup 1 ng	Mean	N	P93Q1
	A A	2.262	21	31-40
	A A	2.250	3	20-30
B B	Α	1.925	204	41-50
В		1.429	7	51-64

APPENDIX X

ANOVA

AGE WITH SKILLS

PO28-MGI 1001-UNIVERSALIA - CARDL ANN ALGRANTI

19:44 Sunday, February 28, 1988)

ANOVA OF P93Q1 (AGE) WITH: OBJ_ACHV EFFORT PROCESS TECHNIQ NEEDS PREPAR MOTIVATE KNOWLEDG PREPARA INTERPER INTERNAL SKILLS EMPLOYEE. COMPARE CELL MEANS

General Linear Models Procedure

Dependent Variable	e: SKILLS 🗼		,		
Source	DF	Sum of Squares	Mean Square	F _, Value	Pr → F
Model	3	3.39596950	1.13198983	2.71	0.0554
Error ,	47	4 19.60185183	0.41706068		
Corrected Total	50	22.99782132	•	•	
· ·	R-Square	C.V.	Root MSE	,	SKILLS Mean
	0.147665	32.395987	0.64580235		1.99346405
Source	DF	Type I SS	Mean Square	. F Value	Pr > F
P93Q1	3	3.39596950	1.13198983	2.71	0.0554
Source	DF -	Type III SS	. Mean Squaré	F Value	' Pr → F
P93Q1 ,	3	3.39596950	1.13198983	2.71	0.0554

.1

ANOVA OF P93Q1 (AGE) WITH: OBJ_ACHV EFFORT PROCESS TECHNIQ NEEDS PREPAR MOTIVATE KNOWLEDG PREPARA INTERPER INTERNAL SKILLS EMPLOYEE. COMPARE CELL MEANS

General Linear Models Procedure

Duncan's Multiple Range Test for variable: SkILLS

NOTE: This test controls the type I comparisonwise error rate, not the experimentwise error rate

> Alpha='0.05 df= 47 MSE= .4170607 WARNING: Cell sizes are not equal. Harmonic Mean of cell sizes= 6.970954

Number of Means Critical Range .69609358 .73185754 .75572357

Means with the same letter are not significantly different.

Duncan Grou	bruð		Mean	- N	P93Q1
	A A		2.571	° 7	51-64
, B , B	A A		1.952	21	31-40
B	A	•	1.917	20	41-50
' в			1.444	3	20-30

APPENDIX XI

ANOVA

TRAINING WITH KNOWLEDGE

PO28-MGI 1001-UNIVERSALIA - CAROL ANN ALGRANTI

19:44 Sunday, February 28, 1988

ANDVA OF P93Q4 (COURSE EXPERIENCE) WITH: OBJ_ACHV EFFORT PROCESS TECHNIQ NEEDS PREPAR MOTIVATE 'KNOWLEDG PREPARA INTERPER INTERNAL SKILLS EMPLOYEE. COMPARE CELL MEANS

General Linear Models Procedure

Dependent Variable:	: KNOWLEDG				
Source	DF i	S um of Squares	Mean Square	F Value	Pr / F
Model	2	2.56941520	1.28470760	3443	0.0406
Error	47	17.58391812	0.37412592	۶	1
Corrected Total	49	20.15333332		-	۰
F	R-Square	c.v.	Root MSE	1	FNDWLEDG Mean
C	0.127493	31.528780	0.61165833	, ·	1.94000000
Source	DF	Type I SS	Mean Square	, F Value	Pr : F
P93Q4	2	2.56941520	1.28470760	3.43	0.0406
Source '	DF	Type III SS	Mean Square	F Value	۶ Pr ≻ F
P93Q4	2	. 2.56941520	1.28470760	3.43	0.0406
,					

ANOVA OF P93Q4 (COURSE EXPERIENCE) WITH: OBJ_ACHV EFFORT PROCESS TECHNIQ NEEDS PREPAR MOTIVATE KNOWLEDG PREPARA INTERPER INTERNAL SKILLS EMPLOYEE. COMPARE CELL MEANS

General Linear Models Procedure

Duncan's Multiple Range Test for variable: KNOWLEDG

NOTE: This test controls the type I comparisonwise error rate, not the experimentwise error rate

> Alpha= 0.05 df= 47 MSE= :3741259 WARNING: Cell sizes are not equal. Harmonic Mean of cell sizes= 16.50181

Number of Means Critical Range .42850633 .45052217

Means with the same letter are not significantly different.

Duncan Grouping	Mean	N	P93Q4
Α .	2.228	19	1
B B	1.792	16	2
B	1.733	15	3

APPENDIX XII.

PARTICIPANT PERCEPTIONS OF THE TRAINING PROCESS

QUESTION			% OF RESPONDENTS WHO							
No.	CONTENT	1	2	3	٠ 4	5	<u> </u>	SD		
5.	Received information before course began	55%	35%	2%	5%	3%	1.66	.97		
6.	Training objectives determined before arrival	34%	42%	3%	15%	6%	2.18	1.23		
9.	Pace of training was suitable	15%	44%	10%	26%	5%	2.62	1.16		
10.	Training had right level of difficulty	32%	60%	. 8%	0%	0%	1.76	- 59		
11.	Training was well organized	40%	56%	3%	0%	0%	1.63	.55		
12.	I worked hard during the training	53%	31%	10%	5%	0%	1.69	.89		
13.	Presentations were clear	32%	65%	3%	\ 0%	0%	1.71	.52		
14.	Training materials were useful	35%	61%	3%	0%	0%	1.68	.53		
15.	Right amount of practical exercises in the course	34%	53%	3%	8%	2%	1.90	.91		

APPENDIX XII Cont'd PARTICIPANT PERCEPTIONS OF THE TRAINING PROCESS

	QUESTION		% OF RESPONDENTS WHO							
NO.	CONTENT	1	2	3	4	5	X	SD		
16.	Right amount of lec- turing in the course	45%	50%	0%	5% -	0%	1.65	.72		
17.	Right amount of group discussions in the course	40%	55%	3%	0%	2%	1.68	.69		
18.	Received feedback on course performance	21%	56%	8%	15% -	0%	2.16	.92		
19.	Able to give feedback to trainers	27%	47%	10%	16%	0%	2.15	1.00		
20.	Trainers were well prepared	60%	37%	2%	2%	0%	1.45	.61		

NOTES:

Variations in totals explained by incomplete questionnaires Number of respondents = 62

No. = Number

X = Mean

SD = Standard Deviation

ITEMS: CALCULATED FOR MEANS ON THE FOLLOWING SCALE:

1 = Strongly Agree

2 = Agree

3 = No Opinion

4 = Disagree

5 = Strongly Disagree

APPENDIX XIII PARTICIPANT PERCEPTIONS OF THE EXTENT TO WHICH TRAINING MET THEIR NEEDS

	QUESTION		10					
No.	CONTENT	1	2	3	4	5	X	SD
7.	Course content meets my needs	23%	69%	7%	2%	0%	1.87	.59
8.	Course content can be used in my job	35%	61%	2%	2% _	0%	1.69	.58

NOTES:

Variations in totals explained by incomplete questionnaires Number of respondents = 62 No. = Number

X = Mean

SD = Standard Deviation

SCALES:

· 1 = Strongly Agree

2 = Agree

3 = No Opinion

4 = Disagree 5 = Strongly Disagree

APPENDIX XIV PARTICIPANT PERCEPTIONS OF TRAINING OUTCOMES

QUESTION			% OF RESPONDENTS WHO							
No.	CONTENT	1,	2	3	4	5	X	SD		
21.	l learned a lot	35%	60%	2%	3%	0%	1.73	.65		
22.	Training made me aware of my behavior with an employer	50%	40%	6%	3%	0%	1.63	.75		
23.	I feel more confident towards my job requirement	26%	59%	11%	2%	2%	1.93	.77		
24.	I will be more effec- tive in my job	23%	66%	10%	2%	0%	1.90	.62		
25.	Training was worth the time and energy investment	39%	55%)	3%	3%	- 0%	1.71	.68		
26.	I would recommend this training to collegues	48%	44%	6%	2%	0%	1.61	.68		

NOTES:

Variations in totals explained by incomplete questionnaires Number of respondents = $62 \cdot$

No. = Number

X = Mean

SD = Standard Deviation

ITEMS CALCULATED FOR MEANS ON THE FOLLOWING SCALE:

1 = Strongly Agree
2 = Agree

3 = No Opinion

4 = Disagree

5 = Strongly Disagree