Determinants of Perceived Training Transfer

A thesis presented in partial
fulfilment of the degree of Masters of
Science in Psychology at
Massey University

Warren James Saunders
2000

Abstract

Organisational literature suggests that training is an area of exponential growth (Goldstein, 1986, 1991, 1993; Quinones & Ehrenstein, 1997). Despite this, and a high level of expenditure on training, the application of learnt skills on the job is low (Curry, Caplan, Knupple, 1994). The deficit between investment in training and the 'generalisation' of trained skills to the job has been referred to as the 'training transfer problem' (Michalak, 1981). Research has identified a range of aspects in the work environment, trainee, and training design that can influence transfer of training (Baldwin & Ford, 1988). This study attempts to assess these influences on the effectiveness of an in-house training intervention. Guided by Holton's (1996) 'Evaluative Research & Measurement Model', a quasi-experimental design was used to confirm influences of 'intervening conditions' on perceived training transfer. Intervening conditions included *Learner Readiness, Performance Self-Efficacy, Motivation to Transfer, Transfer Effort, Performance – Outcomes Expectations, Feedback/Performance Coaching, Supervisory Support, Supervisory Sanction, Peer Support, Resistance, Personal Outcomes – Positive/Negative, Opportunity to Use Learning, Personal Capacity for Transfer, Perceived Content Validity,* and *Transfer Design.* Analysis of employee perceptions indicated that training resulted in a perceived change in work place practices for those who had participated in training. Regression results evidenced the influence of the intervening conditions on perceived training transfer. Of the 16 intervening conditions in Holton's (1996) model, only *Transfer Effort – Performance Expectations, Feedback/Performance Coaching, Supervisory Support, Resistance, Perceived Content Validity, and Transfer Design* impacted on perceived training transfer significantly. Findings are discussed in the context of design, sampling, statistics, and limitations; recommendations for training practitioners and organisations, as well as suggestions for future researchers are outlined.

Dedication

I would like to dedicate this Master's to the memory of the siblings I never knew, Kim Gilvray, and Jeannette Saunders.

I also dedicate this thesis to the women of my family for all the hardships they have endured.

Acknowledgements

Obtain access to a population in the organisational context requires dedication and careful negotiation. The researcher needs to be aware that in order to obtain an organisational sample, the investigation must in some way bring benefit to the organisation, particularly those of the private sector. Once a population is obtained, research in the organisational context demands both patience and compromise. Throughout the research process one needs to be in constant contact with the organisation to ensure smooth and proper delivery and administration of instrumentation to participants'. These difficulties were eased with the belief and support of two members of the ANZ banking Group to which I am grateful: Vic Hewson (former ANZ HR Manager), and Alma McNicole (current ANZ HR Manager).

During the process of research, analysis and reporting I sought and received the advice of my primary and secondary supervisor, Dr. Gus Habermann and Dr. Sarah Leberman. Whilst Dr. Habermann gave valued guidance on matters of scale development, empirical research, and statistical analysis, Dr. Leberman provided sound advice on matters of research within training and the organisational context. Dr. Leberman furnished a valued qualitative counterbalance to Dr. Habermann's more quantitative perspective. During the write-up, both supervisors provided prompt and accurate editorial feedback, which lifted the final report to its present level.

I would like to extend my thanks to Professor Elwood F. Holton III, Ed. D. of *Louisiana State University* for allowing me to utilise his Learning Transfer Questionnaire (LTQ) and for providing council on issues of scale administration and data collection.

Special thanks to Nien-Tsu Cheng, his wife, Yueh-Ling Cheng, and their daughter, Maggie CJ Cheng for their friendship, encouragement, and support from conception to completion of both this thesis and my master's degree.

During the Autumn of this work, my mother, Frances Ralston, and her partner Roy Tregilgas provided a home in which I could complete the present work. I thank you both.

In the last week of this labour, Patricia Waite and Andy Dando's hospitality made the tedious task of referencing and final editing more bearable.

Finally, I would like to extend my thanks to those members of the ANZ Bank who recognised the benefits of participating in this research. I hope that the findings can assist you and your colleagues in receipt of more effective training programs.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

Chapter One

Introduction

Throughout history people have recorded and passed knowledge from one generation to the next. The means by which knowledge and skills are transmitted has evolved, as have the amount and complexity of those knowledge and skills (Steinmetz, 1976, cited in Quinones & Ehrenstein, 1997).

With the advent of the industrial revolution and more recently the information revolution, the complexity of, and rate at which work practices are changing, has increased exponentially (Quinones & Ehrenstein, 1997). Consequently, the worker is expected to know more and perform more to increasingly higher standards as standards of living increase, and as new technology demands more skill of the worker (Nordhaug, 1989; Casio, 1995). Within the work place, these trends have seen employees' witness the replacement of the skilled manual labourer with a labourer who is more cognitively skilled (Goldstein & Gilliam, 1990). Underlying these changes is a continual decline in manufacturing coupled with an increasing demand for high technology; improved quality of goods and services; information, sales, and a shift to a highly competitive global market (Goldstein, 1986, 1991, 1993; Goldstein & Gilliam, 1990; Nordhaug, 1989; Facteau, Dobbins, Russell, Ladd, & Kudish, 1995; Quinones & Ehrenstein, 1997). More recently, the sales-oriented worker has being replacing the service-oriented worker as companies compete in increasingly competitive deregulated global markets (Nordhaug, 1989; Casio, 1995).

Because of these changes, employees have become more dependent on training as a strategy for maintaining their value to organisations through the improvement of their skills, and as a means to maintain and improve their job performance (Quinones & Ehrenstein, 1997; Arnold, Robertson, & Cooper, 1991). From the organisations perspective, training represents a strategy for changing employees' behaviour, knowledge, skills and attitudes in order to facilitate better job performance (Goldstein, 1993). Given the rate of change in global markets and work place practices, organisations and employees are increasingly turning to training, continual training, and re-training in order to keep their labour force and themselves efficacious (Goldstein &

Gilliam, 1990; Nordhaug, 1989; Goldstein, 1991, 1993). For instance, it has been estimated that more than 90% of private organisations undertake some form of systematic training (Goldstein, 1986, 1991). For the individual employee, it has been estimated that they can expect to retrain five to eight times during the course of their careers in order to keep abreast of technological changes (Wexley, 1984). For the organisation, the need for more frequent training and retraining has meant an exponential increase of capital investment in training interventions (Goldstein & Gilliam, 1990). For instance, organisational expenditure for training and development during the mid 1970's averaged US$75 billion per year, by the early 1980's this figure exceeded US$100 billion annually (Wexley & Latham, 1991; Kelly, 1982; Georgenson, 1982; Mathieu, Tannenbaum, & Salas, 1992). Such figures testify to the increasingly important priority placed by organisations on employee training and development as a strategy for adaptation to changing market conditions (Goldstein & Gilliam, 1990).

Despite the level of investment, many training interventions have being labeled as faddish, lacking in the utility of known learning principles, and Atheoretical (Campbell, 1971; Facteau, Dobbins, Russell, Ladd, & Kudish 1995; Goldstein, 1980, 1986, 1991, 1993; Wexley 1984). Unfortunately, the combined influences of market changes, and the faddish nature of numerous training interventions has resulted in many organisations seeking to increase training effectiveness by employing irrelevant, expensive, and/or sophisticated training techniques without regard to their actual need (Quinones & Ehrenstein, 1997; Facteau et al., 1995). This has been compounded by the assumption that *'any training is good training'*, and a pervasive faith that all training provides results in terms of improved job performance (Goldstein, 1993; Wexley, 1984; Latham, 1988; Quinones & Ehrenstein, 1997). Moreover, the entrepreneurial tactics of umpteen profit-driven training providers has prompted innumerable organisations to utilise irrelevant training programs (Goldstein, 1991).

In addition to these problems, program evaluation is rare and rigorous evaluative research practically nonexistent (Goldstein, 1986, 1991). Because of poor evaluative research, many organisations are unaware of whether training has been effective or not (Burke & Day, 1986). Consequently, a need for quality (i.e. guided by standardised measurement models, and appropriate research designs) evaluative research has arisen out of the unchecked growth in, and cost of training, as well as the degree to which

training interventions frequently fail to fulfill what they promise to deliver. For instance, in today's training world, organisational expenditure on formal training and development has been estimated to exceed $52.4 billion annually in the USA alone (Lakewood Research, 1994; cited in Holton, Bates, Seyler, & Carvalho, 1997). When informal on-the-job training is included in the figure, the estimate is inflated to US$200 to US$400 billion (Broad & Newstrom, 1992). Yet, it has been estimated that no more than 10% to 13% of the expenditure on training results in transfer to the job (Wexley & Latham, 1991; Baldwin & Ford, 1988; Huczynski & Lewis, 1988; Georgenson, 1982; Curry, Caplan, & Knuppel, 1994). Translated to dollar terms, 87 to 90 US cents in each dollar spent on training is lost back in the work environment. Within this fiscal theme, Goldstein (1991), Latham & Crandall (1991), and Casio (1989) noted that organisational effort and expenditure to evaluate training effectiveness infrequently matches the amount spent on developing and delivering training. Not surprisingly, many authors attribute the transfer deficit to a lack of both rigorous needs analysis and evaluative research by organisations (Latham, 1988; Curry et al., 1994; Tziner & Haccoun, 1991; Noe, 1986; Ford, Quinones, Sego, & Sorra, 1992; Goldstein, 1986, 1991; Tannenbaum & Yukl, 1992).

Fortunately, as the cost of training continues to rise, and as more organisations invest heavily in training, there has been increasing organisational concern for the cost-benefit and cost-effectiveness of training programs, which are increasingly being required to justify themselves. As a result, organisations are asking more evaluative questions regarding the quality and utility of both in-house and externally provided training programs (Goldstein, 1991, 1993; Tannenbaum & Yukl, 1992).

The Phenomenon

Given the level and cost of training, the lack of summative evaluation, and the low degree of training transfer to the job, the present study makes an attempt to investigate the phenomenon of training transfer in the New Zealand context. In particular, this research investigated known antecedents of training transfer and their influence on the effectiveness of an organisations (private sector) in-house training intervention. Of particular interest was the degree to which known perceived transfer 'intervening conditions' predicted transfer of training. Secondly, the extent to which trainees' believed they had retained and practiced the skills, knowledge, and abilities gained in

training back in their jobs. In pursuing answers to these issues, it was hoped that the theoretical *'truths'* regarding training transfer overseas would hold merit and benefit for the New Zealand context. The investigation sought to benefit trainees' within the sampled organisation by identifying 'intervening conditions' that might explain the level of training effectiveness. Finally, the study aimed to benefit the organisation through greater understanding of training dynamics, which if practiced could result in an increased return from the training investment.

Motives

In New Zealand, the level of expenditure on training and development is not publicly available, although Statistics New Zealand's *'Education & Training Supplement (1996)'* revealed that 24.6% of the New Zealand labour market participated in some form of training aimed at improving job performance (Personal Communication Statistic New Zealand, 1999). As is the case overseas, New Zealand companies, within both public and private sectors continue to invest heavily in training, but fail to conduct proper 'needs analysis' and evaluative research. In particular, a literature search revealed few rigorous efforts into training evaluation that addressed the bottom-line of organisational training, namely the use of trained skills back in the work setting (McSherry, 1992; McSherry & Taylor, 1994).

Consequently, I felt that there was a need to address the issues of training evaluation in the New Zealand context, in particular, training evaluation that answered the question; are *trained skills used in the target environment*? My interest in transfer of training initially evolved from a preoccupation with the learning phenomenon and the learning endeavour. Given my curiosity in human behaviour, which lead me to the study of psychology, I undertook to investigate an issue that held enough personal interest to sustain me through a thesis. Initially, I wanted to investigate training transfer in outdoor-experiential education, but a lack of a suitable sample precluded this. Subsequently, I decided that investigating the problem of training transfer in an organisational context, within New Zealand would hold adequate personal reward. Readings in the field lead me to an awareness of factors (i.e. intervening conditions) that appeared to predict training transfer; the influence (as shown abroad) of these factors motivated me to undertake the present investigation. Consequently, the undertaking of this thesis was driven by a desire to satisfy my personal questions regarding the

relationships between known predictors of training transfer in order to answer the questions; (1) *How can we improve training?* (2) *What factors facilitate learning, retention, and the practice of new learning back at work?*

Theoretical & Practical Motivation

Although training absorbs a great deal of organisational expenditure there is a paradox when it comes to the importance of determining the effectiveness of that training in terms of post-training job performance. As a measure of post-training job performance, training transfer maintenance and generalisation has emerged as the ultimate goal for training and the primary criteria for contemporary evaluative research (Tziner & Haccoun, 1991). Despite this, the issue of training transfer has only received limited theoretical and empirical attention (Goldstein, 1986, 1991, 1993; Baldwin, 1987; Baldwin & Ford, 1988; Gist, 1989b; Gist et al., 1991; Tracey, Tannenbaum, Kavanagh, 1995; Holton et al., 1997; Facteau et al., 1995; McSherry & Taylor, 1994; Tannenbaum & Yukl, 1992; Ford, Quinones, Sego, Sorra, 1992). Given the fundamental purpose of training to facilitate the development of skills and abilities to enhance job performance (Goldstein, 1991), it is desirable that more evaluative research focusing on training transfer be undertaken. For instance, the *Annual Review of Psychology* has devoted four chapters to personal training in the last ten years, yet only the most recent discusses the importance of training transfer (Goldstein, 1980; Wexley, 1984; Latham, 1988; Tannenbaum & Yukl, 1992). Prior to this, the reviews are dominated by in-depth discussions of the various instructional methods, needs assessments, and evaluation methods used in training. This lack of literary examination by the major reviews is unsettling when you consider training transfer as the ultimate goal for effective training.

Research which has been conducted on training transfer demonstrates that a good proportion of the training conducted fails to transfer to the work environment (Goldstein, 1986; Baldwin & Ford, 1988; Tziner et al., 1991; Tracey et al., 1995). For instance, a meta-analysis by Burke & Day (1986; cited in McSherry & Taylor, 1994) revealed that trainees were only moderately successful in generalising newly trained skills to their work setting. This failure to transfer seems to largely stem from a failure of practitioners to account for organisational and social factors when designing, implementing and evaluating training (Latham & Crandall, 1991). This deficit between investment in training and the generalisation of skills to the work setting has been

identified as the *'training transfer problem'* (Michalak, 1981).

Until recently, the lack of training transfer research has been compounded by an emphasis on training success being determined by the design, contents, and outputs of the training itself (immediate learning & training reactions) (Goldstein, 1991; 1993; Quinones & Ehrenstein, 1997). These approaches typically embodied traditional program evaluation criteria, rather than the present emphasis on long-term post-training work related performance and retention criterion (Tracey, Tannenbaum & Kavanagh, 1995; Alliger & Janak, 1989; Baldwin & Ford, 1988; Noe, 1986; Goldstein, 1986; Holton, 1996). The more recent approaches to evaluative research, which focus on training transfer, typically require that newly trained skills, knowledge and attitudes be generalised and maintained back in the job setting (Baldwin & Ford, 1988; Holton, 1996). Consequently, evaluative researchers have had to evaluate their own theoretical models and measurement methods used to evaluate training effectiveness (Alliger & Janak, 1989; Tannenbaum & Yukl, 1992; Holton, 1996). The need for the evaluative endeavor to change has been prompted by the increasing complexity of the training, especially when viewed from the perspective of human development. This perspective clarifies why many training interventions result in undesirable or non-detectable changes in behaviour (Landy, 1989). Muchinsky (1993) supported this view when he remarked that, personal training is a complex and multifaceted activity. In organisations, training is complicated by the objective of trying to fit it to key performance indicators (KPIs'), despite the fact that it is often carried out in a different environment from the one that it is targeted for (with trainees who possess varied characteristics and experiences).

Research into transfer of training has both theoretical and practical implications. Initially, research is important if the theory and practices that underlie training interventions are to be advanced. For instance, it has been observed that empirical and theoretical research has failed to keep pace with the rapidly evolving practices in work-related training (Goldstein, 1980; Wexley 1984; Quinones & Ehrenstein, 1997). Given the expense of training, there is a need to evaluate and assess training in terms of training transfer in order to facilitate the answering of the question, *'Does training work?'* and more importantly, *'Do employees and their organisations benefit from training through increased performance and profitability?'* In addition, the literature on

the training transfer phenomenon would be improved. This seems particularly critical given the comments of Campbell (1971), and Goldstein (1993), who similarly noted that much of the training literature is voluminous, non-empirical, poorly written, and dull.

The benefits of research into training transfer has further practical implications for the quality of training and the degree to which training is effective (Goldstein, 1991). Specifically, findings when applied to the practical situation could predict training outcomes aimed at training transfer. From a practical position, training transfer research should result in findings that can guide practitioners, clients, and organisations to aspects of the training, trainee, and work environment that act to mediate training transfer.

Finally, there is a need to bring greater coherence to the investigation of training transfer (Baldwin & Ford, 1988; Rouiller & Goldstein, 1991; Holton, 1996; Holton et al., 1997). In particular, there has been such a diversity of theories (Cf. Chapter 3) and instruments developed for the investigation of training transfer that it has become difficult to compare and synthesise findings. In order to counter this trend, authors such as the aforementioned have undertaken to develop generic models and instruments for investigation into training transfer. In the present investigation, the theoretical approach and instrumentation of Holton (1996), and Holton III, Bates, Seyler, Carvalho, (1997) were adopted and applied to the issue of training transfer.

Using an empirical approach, the present study applied a generalisable transfer-of-training model, the *Evaluation Research & Measurement Model* (Holton, 1996), and the accompanying instrumentation, the *Learning Transfer Questionnaire (LTQ)* to the research phenomenon, perceived training transfer (Holton et al., 1997). The use of this generic model and instrument can add to the understanding of training transfer by going some way towards encouraging future researchers into using standardised instruments for cross–study comparisons (Holton et al., 1997). By utilising the LTQ on various working groups and training types, construct reliability and validity can be tested in different settings. Additionally, the use of standardised accurate and reliable measures of training transfer would have significant diagnostic potential for problem trainees, work settings, and training (Holton et al., 1997). Finally, by using an evaluative criterion as a measure of training transfer in conjunction with the LTQ, the relationship

between LTQ constructs (trainee, training design, work environment) and performance criterion could be further established (Holton et al., 1997). The ultimate benefit would be towards an accurate definition of training transfer and the answering of the questions, *'why does training works?'* and *'what factors within the organisation, trainee, and training predict transfer of training?'* (Tannenbaum & Yukl, 1992; cited in Holton et al., 1997).

Research Objectives

This study pursued three major objectives:

- *The investigation of the transfer of training phenomenon from the perspective of an in-house training intervention in the New Zealand context.*
- *The exploration of the relationship between perceived organisational transfer climate and perceived training transfer from an in-house training intervention. This was undertaken with Holton's (1996) Evaluation Research & Measurement Model, and the Learning Transfer Questionnaire (LTQ) (Holton et al., 1997, 1998).*
- *To develop and field-test a measure of perceived training effectiveness for an in-house training intervention.*

(For a full review of training aims and assumptions, please refer to Chapter 4)

Organisation of the Thesis

The thesis has been divided into three major sections and eight chapters. The first section, comprising chapters 2 through to chapter 5, is a review of the literature pertaining to training transfer. Section two; comprising chapters 6 describes methodology. Chapter 6 can be further divide into three sub-sections. Sub-Section one describes the aims, assumptions, research questions, and hypothesis. Sub-Section two of Chapter 6 outlines the criterion for training transfer, the research design and the model used to guide the investigation, ethical considerations adhered too, and points of validity controlled for. Sub-Section three of Chapter 6 addresses the source and development of scales, the nature of dependent and independent variables, and the characteristics of the sample and the organisation investigated. Finally, section three, comprising chapters 7 and 8, are dedicated to the analysis, results, and the discussion of the study respectively.

In Chapter 2, training is defined and reviewed in the context of the organisation. The chapter contrasts training with learning, development, and performance. Following this, training outcomes and training effectiveness is discussed. Lastly, the value and purpose of training is reviewed in the context of the organisation for both employees' and the organisation.

Chapter 3 defines transfer of training for the present investigation. To facilitate conceptual clarity, traditional and historical perspectives and theories on training transfer are reviewed. Following, there is a brief discussion on contemporary approaches to enhancing training transfer. Lastly; a diversity of contemporary transfer of training models, theories, and perspectives are discussed, including a review of the theoretical framework adopted, together with the rationale for its use in the present study.

In Chapter 4, the genesis, evolution, and current meaning of organisational transfer climate is considered and conceptualised.

Chapter 5 examines and clarifies the intervening conditions (i.e. predictors) of perceived training transfer investigated in the present study. In this chapter, elements of the training design, trainee attributes, and organisational environment are presented and conceptualised. This Chapter has been organised according to the administration scheme of Holton et al's (1997) Learning Transfer Questionnaire (Cf. Appendix VI).

Chapter 6 outlines the aims and research assumptions. Subsequently, the research questions and hypothesises are addressed. In chapter 6, the research designed is appraised in light of its form, strengths and weakness. The later part of the chapter explores issues of methodological and statistical validity. In the last sub-section of Chapter 6, scale source and development are discussed. This includes a survey of the dependent and independent factors under investigation. Background questionnaires and interviews are described, followed by a review of the sample source and selection, the criteria for participant inclusion, and the survey procedure.

From here, the investigation turns attention to analysis and results in Chapter 7. This has been done according to the order in which the hypothesis were presented in

Chapter 6. Chapter 7 presents aspects of data preparation and screening, data transformations, scale psychometrics (e.g. Cronbach's alpha coefficients), descriptive statistics, rationale & choice of inferential techniques used, as well as results obtained.

Finally, chapter 8 discusses the findings in relation to the hypothesis and literature. Interpretation of findings is offered followed by a presentation of research limitations. The chapter concludes with suggestions for future research and implications for training practitioners.

Chapter Two

Training

A definition of Training for Organisations

The goal of training is to attempt to impart new skills, knowledge, attitudes, and behaviours to trainees (Goldstein, 1993). At its core training aims to bring about change in cognitive, affective, or behavioural factors within trainees in terms of learning (Kraiger, Ford, & Salas, 1993). However, what is training, and how is it defined within the organisational context? In general, training has been defined in fairly homogenous ways. Campbell, Dunnette, Lawer & Weick, (1970, pp. 6.) defined training as, *a planned learning experience designed to bring about permanent change in a persons knowledge, attitudes, or skills.* For instance, the student who attends a dental course at dental school *may* acquire skills that enable him or her to practice dentistry in a clinical work setting. Similarly, Goldstein & Buxton (1982) & Goldstein (1993, pp. 508) referred to training as, '*the systematic acquisition of skills, rules, concepts, or attitudes that result in improved performance in another environment.*' Thus, the student who attends a dental course *will* acquire skills that enable him or her to practice dentistry in a clinical work setting. Both definitions clearly indicate the deliberate interventionist nature of training as a means to altering 'individuals' skills, knowledge, attitudes, and behaviours in a positive way. Both emphasize that what is trained is done so to be sustained beyond the training environment, although the latter definition places greater emphasis on application in another environment. The definitions differ in that the latter assumes training unconditionally alters an individual in some positive manner, where improved performance can be expected, while the former emphasizes training as an attempt to alter targeted behaviours. Moreover, the former definition of training can be distinguished from learning on the basis that it is a planned activity designed to lead to learning, but may not result in learning.

In the organisational context, the definition of training only differs in that the target environment is specified. For instance, two of the four *Annual Reviews of Psychology* discussing the developments in organisations training over the last decade similarly define training. Goldstein (1980, pp. 229) defined training in organisations as, *the acquisition of skills, concepts, or attitudes that lead to improved performance in an*

on-the-job environment. Wexley (1984, pp. 519) defined training in organisations as, *a planned effort by an organisation to facilitate the learning of job-related behaviour on the part of its incumbents.* The term "behaviour" is used in the broad sense to include any knowledge and skills acquired by an employee through practice (Wexley, 1984). The former definition assumes that training leads to learning and improvements in on-the-job performance, while the latter definition drops the assumption, instead opting for training as a *planned activity to facilitate the learning of job relevant behaviours* (Wexley, 1984). In addition to the definitions offered, the four major reviews have established without doubt that training is an effective strategy for bringing about organisationally desirable changes in employee behaviour and job performance.

More recently, Landy (1989) referred to training as a set of planned (intentional) activities designed to increase job knowledge and skills, or to modify attitudes and social behaviour in a manner that paralleled the goals of an organisation and the demands of the job. While, Muchinsky (1993) defined training in industry as: the formal procedures, which an organisation uses to facilitate learning so that resultant behaviours contribute to the attainment of organisational goals and objectives. This latter definition can be broken into four essential components. Firstly, "formal procedures," refers to training as a systematic, intentional intervention. Secondly, "facilitation of learning," means that training acts as a means for creating and guiding learning. Thirdly, "resultant behaviour," means that training intends to change behaviour in a manner that is desirable to an organisation. Finally, "attainment of company goals," indicates the reason why training is conducted in organisations. Specifically, to deliberately change job behaviours to one's which are of value to a company in terms of improved job and organisational performance. These learned behaviours could be identified as the skills, attitudes, knowledge, and behaviours, which is present in well-planned training. What distinguishes this definition from general definitions of training is the emphasis on improved performance in the organisational environment. It is this emphasis of the training and the work environment, and the application of newly acquired skills from the former to the latter which defines the focus of the present research, namely training transfer, and indeed current research trends on training (Goldstein, 1993; Quinones & Ehrenstein, 1997). For instance, Kraiger et al's (1995) noted that various schools of psychology have researched the concept of training transfer in terms of the application of knowledge, skills, and abilities from the training

to the working environment.

Training, Learning, & Performance

Before exploring the concept of organisational training further, it is important to define training in relation to learning in order to gain some perspective on where each fits on the continuum of human development. Moreover, clarification of terms will assist the reader to understand better the focus of the present investigation. Firstly, learning refers to a relatively permanent change in knowledge, skills, and behaviour because of experience and practice (Landy, 1989; Weiss, 1990; Goldstein, 1991). In contrast, training can be best described as an intervention with a number of characteristics that distinguish it from learning. For instance, learning is a process that takes place within a person, whereas training is a process conducted on a person with the intention to facilitate targeted learning (Landy, 1989). A further distinction is that learning is not always planned, whereas training represents the systematic delivery of knowledge, skills, attitudes, and abilities that relate to the work environment with the intent to improve job performance (Goldstein, 1991). One further aspect of the contrast is that training is conducted in select environments dependent on the training design and techniques employed (Goldstein, 1991). For instance, on-the-job training takes place in the work environment under conditions that are real or identical to the job environment. In other cases, such as lecture or class based instruction, training is conducted in environmental conditions removed from that of the work environment (or target environment) (Goldstein, 1991, 1993). On the other hand, learning can take place in any setting, although the degree to which one learns are subject to the effects of the learner, the learning environment, and the environment in which learning is (to be) used. Specifically, the degree to which learning can occur in training and back on-the-job is affected by these three groups of intervening conditions, which themselves determine the extent to which training is practiced and applied on the job (i.e. training transfer).

One further aspect to consider on the continuum of human development is the distinction between training and performance. This is important to note because not all training, not matter how well designed or delivered leads to learning, and not all learning leads to improved organisational performance or improved job performance (Goldstein, 1991, 1993). In essence, training differs from performance in that performance may be thought of as a result or end (bottom-line) that measures up to

some predetermined criterion of an organisation that reflects desirable behaviour (Chaplin, 1985). In plainer terms, performance represents a desired result, whereas training represents a means to facilitate performance improvement, or a means to an end.

Training Outcomes

Before attempting to specify what it is meant by training outcomes, it is necessary take a wide perspective by viewing the general objective of all training interventions, namely learning. Depending on its nature, training can attempt to enhance five categories of learning outcomes (which represent a change of state that makes possible corresponding and persistent changes in behaviour (Gagne, 1984) in the work environment (Muchinsky, 1993). The same five categories of learning outcomes can also occur from an unplanned experience. Before discussing the five learning outcomes, it is reasonable to outline the rationale for five distinct categories. Originally outlined by Gagne (1984), the five categories differ in terms of human performance, requirements for learning, and their effects on learning and continued learning. Moreover, the five categories of learning include a variety of human activities that are independent, differ in information-processing demands for learning, and may have tasks or classes of behaviour, skills, and performance generalised to each and no other category. The five categories include intellectual skills, verbal information, cognitive strategies, attitudes, and motor skills.

Intellectual skills (including concepts, rules, and procedures) have most commonly been referred to as procedural knowledge in the literature (Anderson, 1980). Typically, intellectual skills are logical and systematic in that they follow a sequence of sub-actions in the achievement of an overall action. Intellectual skills are pervasive throughout a diversity of human activities, including language, where speaking and writing is governed by various rules of grammar and syntax (Gagne, 1984). In any activity, where there are distinct rules and concepts, the use of intellectual skills will be evident. For instance, from driving to mathematical calculation, a wide diversity and complex range of tasks require intellectual skills. During the acquisition of intellectual skills, the learner must apply himself or herself to acquiring the sequence of a procedure in a manner that it can be recalled and applied readily to a diversity of similar situations and or problems. Intellectual skills can vary in specificity dependent of the target application, although concepts and procedures can be shared between tasks. In the work

setting, a number of functions require the use of intellectual skills. Take for example, the operation of heavy equipment or writing a computer program.

A second class of learning outcomes is declarative knowledge, which can be demonstrated through an individual's ability to state or declare something (Gagne, 1984; Corsini, 1987). As a learning outcome, verbal information has a variety of occurrences. It can account for isolated factual-information such as names, or packages of information such as the lyrics in a song. Another kind of declarative knowledge is domains or classes of information that can be applied widely as in the case of classes of species and genera. It is this type of knowledge that is most often associated with schemata, or prototypes (Schank & Abelson, 1977), because it has been shown to be organised into meaningful semantic networks. Declarative knowledge is acquired through the acquisition of meaningful discourse in a way that is revealed through the restating of exact word, themes and phrases. It can also be acquired through the reconstruction of discourse into main and subordinate ideas and themes, arranged according to meaningful schemata (Gagne, 1984). Learning here is reinforced through practice and rehearsal such that error is reduced and speed of recital is increased, and or the connections between networks are elaborated on and strengthened (Anderson, 1980). In the context of work, where accurate communication and sharing of factual information has become of paramount importance as we have moved from a manufacturing to a service and now a sales-oriented work-force, declarative learning outcomes have become a more common aspect in contemporary training.

The third class of learning outcomes is *cognitive skills* that enable an actor or learner a degree of control over the processes of attending, perceiving, encoding, remembering, and thinking. Specifically, cognitive skills are the strategies individuals use to decide how, when, and where they should use intellectual and declarative skills in the solving of problems, activities, learning, remembering, and reciting (Gagne, 1984). In essence, they exist as the higher order executive control processes, which guide the application and use of other learning outcomes (Atkinson & Shiffrin, 1968). The acquisition of cognitive skills in both learning and training transfer is not well researched or understood, but is presumed to be similar to that of procedural knowledge.

Motor skills are the most overt of all learning outcomes and are evident in the behaviours we exhibit. Specifically, motor skills refer to, *manipulation of the environment based on patterns of body movement* (Gagne, 1984). Some examples include riding a bike, typing, eating, or singing. Motor skills exhibit a gradual improvement (i.e. faster, smoother, more accurate) in motor performance after practice and reinforcement (Singer, 1980). Generally, these skills are acquired through imitation or behavioral modeling, practice, or reinforcement via positive and negative feedback for correct and incorrect form respectively (Fitts & Posner, 1967).

The final class of learning outcomes is attitude, an internal state (Chaplin, 1985; Gagne, 1984) that may not be observed directly. Attitudes do hold common the aspect of an internal state and inference of behaviour with intellectual and cognitive skills, but are unique in that they can only be inferred from behaviour. Despite this stated relationship between behaviour and attitudes, the two seldom correspond as we most often attempt to conceal our attitudes (Triandis, 1971). Regardless of their intangibility, attitudes possess an emotional and cognitive component. In terms of performance, attitudes do not determine behaviour but rather moderate and modulate it (Gagne, 1984). In a like grain, Allport (1969, cited in Triandis, 1971) described attitudes as, 'an internal state that influences the choice of action(s). From a learning perspective, the manner through which attitudes are acquired is still out for debate, although it is thought a conflict in beliefs or, a process of reinforcement results in the learning of attitudes. In most cases, Bandura's (1977a,b) explanation that attitudes are learned through human modeling has the widest appeal. Bandura (1977a) hypothesised that vicarious reinforcement (in which a choice of personal action is followed by a model that is reinforced) leads to an attitude, or development and/or change in attitude(s).

Having taken the wider perspective on learning outcomes it is appropriate to restrict focus to the arena of training and training outcomes. This becomes necessary when one turns to focus on training transfer in which a narrower definition of learning outcomes is required to specify the situation and state from which successful training transfer can be identified. For such a purpose, Baldwin and Ford's (1988) conceived of learning outcomes as training outcomes in order to specify a more precise interpretation for the training context. Training outcomes have been defined as, *'the amount of original learning that occurs during the training program and the degree to which that*

material is retained after the program is completed (Baldwin & Ford, 1988, pp. 64).' In other words, training aims to facilitate one of, or combination of several learning outcomes, which in turn are measured by the degree to which learning in training is maintained and generalised to the job environment.

In the present investigation, the five categories of learning outcomes were used during the construction of the perceived transfer of training scale (PTQ) (Cf. Chapter 6). Specifically, the five categories of learning outcomes assisted in the identification of training outcomes (learning that could be generalised and maintained in the job) during the content analysis of training materials. Subsequently, training outcomes were linked to the aims and objectives of the training intervention. For a full description of the process (Cf. Chapter 6, Section 3)

Training Effectiveness

Within the work setting, the measurement of training effectiveness is important. As Noe (1986) noted, it is the 'bottom line' for assessing the value of training to an individual and the organisation. Specifically, the determination of training effectiveness can shed light on attitudes, knowledge, and skills required by an individual (incumbent) to successfully perform a given task or job (Latham, 1988, cited in Latham & Crandall, 1991). Throughout the training, evaluative and training transfer literature, the most popular model for measuring and determining the effectiveness of training outcomes has been Kirkpatrick's (1959, 1967, 1983, 1976) four-level evaluative criterion (Alliger & Janak, 1989). For instance, in the training transfer literature, Tracey et al (1995), Cannon-Bowers et al's (1995), Noe (1986), and Noe & Schmitt (1986) define training effectiveness in terms of Kirkpatrick's (1983) model. Originally proposed as 'steps', and more recently 'levels' (Goldstein, 1986), the framework postulates four separate training outcomes (evaluation criteria) (Kirkpatrick's, 1959, 1967, 1983; Alliger & Janak, 1989). Level one, *reactions,* refers to how trainees react to the training program and its contents. For example, individual trainee characteristics such as their attitudes, expectations, desires, motivation can enhance or inhibit training effectiveness (Noe, 1986). Level two, *learning,* is represented by knowledge and skill acquisition of trainees while in training. Level three, *behaviour*, refers to the extent to which trainees implement and apply their learning on-the-job (i.e. training transfer). For instance, organisational characteristics and trainee characteristics combine to influence behavioural outcomes including

organisational climate, trainee attitudes. Level four, *results*, is defined by improvements in organisational outcomes and work performance.

In addition to these four levels, Kirkpatrick's (1959, 1967, 1983) model is based on three assumptions. The first assumption is that the 'levels' are arranged in ascending order according to the amount of information they provide (Newstrom, 1978). Therefore a measure of behaviour provides more information than does a measure of learning, and so on. The second assumption is that the levels of evaluation are causally linked. For instance, Hamblin (1974, cited in Newstrom, 1978) remarked that training leads to reactions which in turn leads to learning which leads to changes in job behaviour which leads to shifts in organisational outcomes. The third assumption proposes that the levels are positively intercorrelated (Alliger & Janak, 1989). The result of these three assumptions, is that the model has been arranged in a hierarchical fashion, where: *'favourable outcomes at the lowest criterion level are seen to be necessary for favourable outcomes to occur at the next higher level, and so forth* (Clement, 1982, pp. 177). Support for the hierarchy has been provided by several authors including Latham, Wexley, & Purcell (1975), with the strongest support coming from Clement (1982).

Despite support for Kirkpatrick's framework, it has drawn criticism for being too restrictive in focus for evaluation (Kaufman, Keller, & Watkins, 1995), for the assumptions that underlie the four-levels (Alliger & Janak, 1989), and for being used as an evaluative model when it is only a taxonomy of outcomes (Holton, 1996).

In the first instance, Kaufman et al (1995) suggested that the levels have been focused too narrowly on performance and consequences in the training, while not looking at the wider issue of training transfer and the influences on training transfer and job performance.

In the second instance, Alliger & Janak (1989) believed the three assumptions about the levels of evaluating training were flawed. Regarding assumption one, Alliger & Janak (1989) stated that not all training was meant to affect change at all four levels. For example, training aimed at the introduction of company philosophy is best measured by a growth in knowledge, whereas reactions, behaviour, and results may be irrelevant, or at least no more informative than the level before. Secondly, assumption two,

regarding the causality between levels, has been difficult to prove or disprove because temporality suggests no distinction between reactions and learning due to their typical concurrent measurement. In addition, Alliger & Janak (1989) conducted a review on research using the four-levels, and found that of the 203 articles reviewed only three (Clement, 1982; Noe & Schmitt, 1986; Wexley & Baldwin, 1986, cited in Holton, 1996, p6.) reported correlations between all four levels. Within these, correlations varied so widely that it made it difficult to support assumption two. While, assumption three, which is closely associated with assumption two, is flawed because positive correlations between the levels have been virtually non-existent in the literature. Likewise, Clement (1982) reported being unable to locate in the literature any correlations between the levels in Kirkpatrick's model.

Finally, Holton (1996) suggests that as a taxonomy, Kirkpatrick's model (1959, 1967, 1994) fails to identify all constructs underlying the training phenomenon; does not specify outcomes correctly; lacks account of intervening factors; and does not demonstrate, only surmises, causal relationships (Holton, 1996).

As a reaction to these flaws, Alliger & Janak (1989) revised Kirkpatrick's (1967) criterion of training effectiveness by removing the need for a hierarchical causal link between different training outcomes. For example, Alliger & Janak propose that trainee reactions and learning are affected by different training components and input factors. Reactions are affected by pre-training motivation and by the extent to which trainee training expectations are met (Alliger & Janak, 1989; Cannon-Bowers et al., 1995). Following, is a depiction of the original Kirkpatrick, Model '1', alongside the revised model '2' from Alliger & Janak (1989).

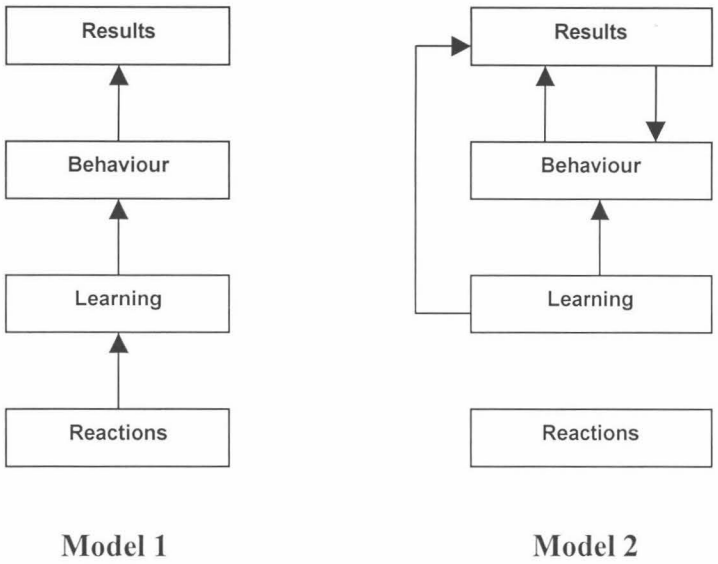

Figure 2.1: Kirkpatrick's Four-levels Evaluation Model: Original (1) & Revised (2)

More recently, Holton (1996) reacted (in part) to Kirkpatrick's (1959, 1967, 1994) model by proposing the *Evaluative Research and Measurement Model.* The new model, which is presented in Chapter 3, accounts for the impacts of primary and secondary intervening variables on training effectiveness. Holton's model takes into consideration the criticisms by Kaufman et al's (1995), and Alliger & Janak (1989) of Kirkpatrick's (1959, 1967, 1994) model. In this study, Holton's integrated evaluative and research model was adopted through the application of the *Learning Transfer Questionnaire* (LTQ) (Cf. Appendix VI) to explain and investigate training transfer.

In summary, prevalent use of Kirkpatrick's (1959,1967, 1994) four-levels model in training evaluation appears theoretically and practically unjustified. Work by Alliger & Janak (1989), and more recently Holton (1996) clarified the structural and validity weaknesses of Kirkpatrick's model for determining training effectiveness. In response the present research effort adopted the model and instrumentation of Holton (1996) that conceptualises training effectiveness as transfer of training.

Contrasting Training Outcomes with Training Effectiveness

In a comparison between training outcomes and training effectiveness it should be apparent that training effectiveness is narrower that training outcomes. Within the domain of industrial psychology, training effectiveness is focused on the direct and

immediate outputs of training, while training outcomes are focused on medium-term learning and retention of skills, knowledge, and attitudes in the job (Baldwin & Ford, 1988). Training outcomes can be distinguished from transfer outcomes (training transfer) in respect that the former are measured immediately after training, while the latter are measured at a much later point after training in the work setting (Baldwin & Ford, 1988). In addition, training effectiveness takes a more global perspective on measuring training by assessing the extent to which stated training objectives are met in terms of measurable training and transfer outcomes in the work environment (Quinones, Ford, Sego, Smith, 1995; Quinones, 1997). Training effectiveness seeks to establish what is wrong and right in order that training can be abandoned, improved and/or modified. For instance, training effectiveness can be enhanced when the organisation takes steps to ensure that: managers and trainees understand the relationship between training and organisational goals; trainees perceive that desirable outcomes result from the completion of training; and environmental constraints to application of new learning is minimised, while trainers, supervisors, and co-workers support what is learned during and after training (Quinones, 1997).

This study focuses on training effectiveness in terms of evaluating the effects of factors that intervene with the level of training transfer. It is these factors, intervening conditions, which form the basis of the discussion in chapter 4. This study also includes aspects of transfer outcomes by assessing '*learning maintenance*' and practice back in the job at a time after the training as reflected in performance on a perceived transfer of training questionnaire.

Training in Organisations: Why it is Critical

As alluded to earlier, organisations adopt training as a strategy to facilitate adaptation to changing markets in order to remain efficacious (Dodgson, 1993), competitive, productive, innovative, and profitable (Gowing, 1990). It is not surprising therefore, that training has become an increasingly critical priority for many organisations (Burk, & Bolf, 1986; Goldstein, 1991; Milkovich & Boudreau, 1991; cited in Bretz & Thompsett 1992). Accordingly, training is used to facilitate adaptation by instructing and promoting change in employees skills, knowledge, and attitudes in a manner that reflects organisational goals and objectives (Goldstein, 1993; Kraiger, Ford, & Salas, 1993). By attempting to change individuals, training represents a vehicle for

implementing change necessary for organisational development (Gregoire, Propp, & Poertner, 1998). The need for change may originate from a perceived deficit in employee performance, or because of new or expanded organisational roles (Quinones, 1995).

At the organisational level training provides organisations with a tool for improving the performance of their employees'. Specifically, the objective of training is to equip employees with the skills, abilities, attitude, and knowledge necessary for successful performance of their jobs. Underlying these goals, are at least seven factors motivating organisations to undertake personal training and development.

Firstly, the process of personnel recruitment and selection does not provide organisations with employees who possess the exact skills and abilities to perform their new jobs (Wexley & Yukl, 1984, Goldstein, 1991, 1993). In most cases, new employees must undergo a period of induction and initial training to acquire the skills, knowledge, and attitudes necessary for them to function effectively in the organisation.

Second, legislative pressures such as equal opportunity laws, or affirmative action, require contemporary organisations to employ more members of minority groups that have been traditionally under-represented in the workforce. Thus, organisations are having to train more members of minority groups including women, ethnic groups, older employees, and 'hard-core' unemployed (Goldstein, 1991). The problem for organisations is that these groups are often less skilled to begin with than the groups they are replacing. Consequently, organisations have to invest in more basic training, including for example, reading and language courses.

The third reason for training involves the retraining of experienced employees because of rapid and continuous changes in technology (Wexley, 1984; Goldstein, 1991; Tannenbaum & Yukl, 1992; Muchinsky 1993; Quinones & Ehrenstein, 1997). As the supply and the demand for more sophisticated technology increases, organisations and employees need to retrain more often. The spin-off for the consumer is that quality of goods and service will continue to improve as production costs drop and competition increases. For the organisation, training will become more costly because of increasingly sophisticated training needed by employees to manage and operate new

technology.

Fourth, shifts in economics from a manufacturing to a service-oriented economy means that employees have to develop more customer and service oriented skills (Wexley & Yukl, 1984; Goldstein & Gilliam, 1990; Goldstein, 1991). Employees are participating in more human-relations and communicative type training programs. Typically, these types of jobs are characterised by an emphasis on 'people work,' where interpersonal skills are a valued asset for communication between employees' and their clients. For example, by the year 1995, it was expected that nine out of ten new jobs would be in the service industry (Personick, 1985). In New Zealand, one only need to look to the increasing prevalence of customer service call centres in both the private and public sectors. For instance, many government departments such as *Inland Revenue* and *Work & Income New Zealand* operate call centres, as do the major trading Banks in New Zealand. Like jobs in the manufacturing industries, these service-oriented positions have low pay, and occupy the lower end of the job market (Goldstein, 1991).

Fifth, management today is more aware of management theory and the possible spin-off to organisations in terms of increased productivity, decreased absenteeism, reduced staff turnover, and increased job satisfaction. This means that both top and middle management recognise the benefits of training to employee job satisfaction and job performance. Consequentially, management is more likely to invest in personnel training.

Sixth, changes in population demographics bring about shifts in the composition of the workforce with more minority groups represented a higher proportion of a reducing labour pool (Goldstein, 1991). Projection suggest that the workforce will grow more slowly, the dominance of whites will continue to decline, woman and older worker will continue to occupy more positions, as will younger workers between the ages of 16 to 24 years (Goldstein & Gilliam, 1990). This has resulted in increasing attention of organisations to their workforce in terms of developing and utilising the available labour pool.

Finally, the faddish nature (as mentioned early in Chapter 1) of many training interventions goes hand in hand with a perception in management that, *'everyone else is*

doing it, so it must be good.' Unfortunately, these training programs are utilised without consideration for their need or effectiveness in delivering their claimed training goals (Goldstein, 1991).

At the trainee level, training is often used to increase individuals' work-based confidence and job satisfaction (i.e. reward function; increased competence leads to decreased stress with increased success) (Baldwin & Ford, 1988; Curry, Caplan, & Knuppel, 1994). In the same grain, training is increasingly being used as a medium for socialisation and induction processes (Feldman, 1989; Tannenbaum, Mathieu, Salas, & Cannon-Bowers, 1991). For example, training is used with new employees to communicate information about the organisation and the trainees' new jobs.

Summary

Ascertaining training success or failure has been a traditional focus of evaluative research, although publications of the last decade indicate that criteria are often restrictive and shortsighted. Beginning with Baldwin & Ford's (1988) seminal review, an extension of the concept of evaluation was suggested to include '*what happens after training.*' By redefining the criterion of successful training to include post-training application of learning, or training transfer, Baldwin & Ford (1988), Noe (1986), Tracey et al (1995) and others concluded that training outcomes and training effectiveness may employee Kirkpatrick's (1967) model, but should extend the fourth level, *results*, to include the generalisation and maintenance of skills on the job. Originally, the results of training included only initial learning and retention before returning to work. Under this extended criterion many training interventions, no matter how well designed and delivered have failed to be effective. Since then, criticism of Kirkpatrick's (1967, 1994) model has seen researchers turning to alternative evaluative models. In the present investigation, Holton's (1996) *Evaluative research and Measurement Model was* endorsed to conduct an evaluation that might account for intervening factors influencing perceived training transfer. Furthermore, the model was adopted as one conducive to a better explanation of the transfer of training phenomenon.

It follows that in order to understand what makes training fail, there is a need to outline the theory, conditions, and factors of training transfer, which can make training 'stick' in the work setting. These conditions and theories are discussed in the following

chapter.

The review of the literature, contemplating the critical nature of training to organisations and employees, highlights the need for continued research to ensure training is more effective in both 'performance' and 'economic' terms.

Chapter Three

Transfer of Training

A definition of training transfer

Traditionally, transfer of training has been defined as a phenomenon in which learning of a response in one situation influences the response in another (Adams, 1987). For the training practitioner, transfer of training requires that knowledge acquired in training be applied in settings outside the learning situation. Broadly, transfer involves prior knowledge affecting new learning (during training), and subsequent performance after training (McKeough et al., 1995, cited in Quinones & Ehrenstein, 1997). These definitions overlap when pointing to the 'transposition' or 'shift' of learned responses from one situation to another.

In industrial and organisational psychology, transfer of training has being defined for the organisational context as, *'the degree to which trainees apply and maintain in their jobs the knowledge, skills, and attitudes gained in training programs* (Holton et al., 1997, p 96, from Wexley & Latham, 1991). According to this definition, for training transfer to have occurred, learned 'material' must be, (1) generalised to the job context; and (2) maintained over a period of time on the job (Baldwin & Ford, 1988).

Generalisation denotes the extent to which knowledge, skills, and attitudes acquired in training are applied to analogous or different tasks back in the work setting (Adams, 1987). Maintenance denotes that learned material must be sustained in the job practices and functions over a time following training (Baldwin & Ford, 1988). The period frequently implied is a year or more after training. Degrees of maintenance have been linked to the concept of decay (Newstrom, 1984). Newstrom estimated the rate of training relapse as follows: (1) 40% of skills learned in training transfer immediately, (2) 25% remains after six months, and (3) only 15% remained a year later.

Wexley and Latham's (1988, 1991) definition implies that transfer of training is a function of the characteristics within the formal training context and the work context (Tracey, Tannenbaum, & Kavanagh, 1995). It also implies that transfer is more than the

sum of learning that occurs on a training intervention (Atkinson, 1972; cited in Baldwin & Ford, 1988).

Broad and Newstrom (1992) offered a definition of transfer of training as the effective and continuing application, by trainees to their jobs, of knowledge and skills gained in training. They suggest that full transfer is not realised until, with practice on the job, skill level increases beyond the level demonstrated at the end of a training program. Stiefel (1974) described the transfer of training as involving both the ability to apply what has been learned, and the possibility of using it in the organisational environment. It is necessary to look at both the learner and the characteristics of the work setting in which the new learning is to be applied. The Stiefel definition also suggests that the work environment can influence the success of transfer by moderating the ability of the trainee to use new skills. Common to all these industrial definitions is the idea that successful transfer occurs when an existing job task continues to be executed, but done in a new way consistent with skills acquired during training (Tziner et al., 1991; Baldwin & Ford, 1988).

In this research, transfer of training was defined according to the Wexley & Latham (1981, 1991, cited in Holton et al., 1997) definition. In accordance with this, transfer of training has been viewed as a function of three categories of factors, including the training design, trainee characteristics, and the work environment (Baldwin & Ford, 1988; Holton, 1997). Together these categories of factors have been shown to influence the transfer of training (Holton, 1996, 1997). It is these categories of factors, which become the basis of the discussion in the subsequent parts of this chapter, and the latter chapter.

Transfer of training will first be considered from a 'traditional' perspective, which viewed it as a function of training design. Consequently, the means to improve transfer was to improve training design, normally through the application of various learning principles. Next, 'contemporary approaches' to improving transfer based on training design will be discussed. This seems pertinent because training design forms one category of factors measured in the present investigation. Transfer of training in contemporary approaches has being modeled to include factors of the work environment and trainee. The latter factors have become important in contemporary research and

theories on transfer of training, which are examined later in this chapter. Finally, Holton's (1996) *'Evaluation Research & Measurement Model'* around which this study has been conducted is explained.

Theories of Transfer of Training

Traditional Views on Transfer of Training

Historically, several distinctive approaches to transfer have been proposed, involving varying types of transfer. These distinctions are of relevance to the present because they may help the reader to gain a better understanding of the concept of transfer of training and its evolution. Specifically, the various forms of transfer offer possible explanation of the generalisation and maintenance aspects of training transfer, which by definition are critical to the transfer of training. Moreover, earlier definitions of learning transfer (i.e. transfer of training) form the basis of traditional approaches to improving training transfer (principles of learning). Subsequently, these principles of learning have been incorporated into training design as a means to enhance training transfer. Before considering the principles of learning, conceptualisation of transfer, on which the leaning principles are based, is discussed. For the sake of simplicity, the conceptual distinctions will be expressed as five binary contrasts.

Lateral & Vertical Transfer

Gagne (1965) was the first to propose a vertical/lateral distinction for transfer of learning. Vertical transfer occurs when a skill or piece of knowledge contributes directly to the acquisition of superordinate skills or pieces of knowledge (Gagne, 1965). For instance, students who can multiple and subtract will master the art of long division more rapidly than those who cannot.

Alternatively, lateral transfer refers to a generalisation that spreads over a broad set of situations at roughly the same level of complexity (Gagne, 1965). This type of transfer occurs when, for example, an employee operating a forklift can recognise and capitalize on operational similarities and master new, but similar activity such as driving a front-end loader. Research by both educationalists and psychologists has largely

supported the distinction, although greater attention has been given to vertical transfer (Royer, 1979).

Specific & Non-Specific Transfer

Specific transfer involves, 'a situation where there are clear similarities between the stimulus elements in the original learning and the stimulus elements in transfer learning' (Royer, 1979, p 54). The similarity between stimulus elements may be very clear such as with the orthography and phonology of words, and less apparent when comparing training and job situations. If the learner recognises these similarities the acquisition of transfer task will be more rapid (Royer, 1979). Research, including Ellis's (1965) on verbal learning, and Weisgerber's (1971) specific transfer and sequencing of instructional material, support the hypothesis of specific transfer.

Non-specific transfer is distinguished from specific transfer because there is no obvious shared stimulus elements between the original learning task and the transfer task. The classic demonstration of non-specific transfer are the *'learning to learn'* (Postman, 1969), and the *'warm-up'* (Ellis, 1965) effects from laboratory experiments.

Literal & Figural Transfer

Literal transfer involves the transfer of intact skills or pieces of knowledge to a new learning task. For example, a skate boarder can apply the knowledge and skill of balance and centering to the problems of balance and centering posed by surfing or snow boarding. With this new distinction most of the previous definitions could be included in literal transfer (Royer, 1979), although such a claim would be disputed today. For instance, vertical transfer involves the use of intact skill of piece of knowledge in a new learning task.

In contrast, figural transfer involves the use of some portions or segments of our total knowledge as a tool for thinking about, learning about a problem or issue. For example, figural transfer is used in figural language including similes and metaphors. When we say things like, *'as big as a mountain'* we are asking the listener to use their world knowledge to contextualise and comprehend the sentence. Figural transfer is important in higher cognitive tasks involving problem solving and the development of new ideas, and thoughts (Schon, 1963).

Near & Far Transfer

Mayer (1975) proposed a distinction between what he termed near and far transfer. In the case of the former, the stimulus complexity for the transfer event is similar to the stimulus complexity of the original learning event. For instance, if original learning involves adding three digit numbers, then adding four digit numbers would assess transfer. In contrast, *far transfer* refers to a situation where stimulus complexity for the transfer event differs markedly from the stimulus complexity in the original learning situation. For example, the transfer task might involve word tasks, while the original learning involved number tasks. In the real world, far transfer would occur in situations in which material learned in school is applied to the work situation. The degree to which near and far transfer differs is a matter of difference between the learning situation and the transfer situation.

Positive & Negative Transfer

The concern here is not with the recognition or similarity between learning and transfer task, but rather on the degree to which original learning impinges on the acquisition of new learning. Osgood (1949) believed that the original or previous learning and experience would affect later learning and performance. In particular, Osgood (1949) proposed the concepts of positive and negative transfer. Positive transfer occurs when experience in one task aids the acquisition of skill in another task. Positive transfer is most likely to occur when two tasks involve identical or similar components (elements) in response to a similar stimulus situation. Empirical support for positive transfer is mixed, although Baker et al's (1950; cited in Mazur, 1994) found that their motor task experiment supported the proposal of positive transfer when tasks elements and situations are similar.

Negative transfer involves the interference of a prior learning experience with learning in another, similar situation (Osgood, 1949). Negative transfer is most likely to occur when two tasks are antagonistic and/or when the responses are incompatible to similar stimulus responses. Research in support of negative transfer is rare, although Lewis et al's (1951) provide an example in their experiment where they found that prior practice with one task interfered with practice in a reverse task to such an extent that performance in the treatment group was reduced.

Summary

Juxtaposing the various distinctions it is not difficult to recognise over-laps. The contrasts are not mutually exclusive. For instance, the vertical-lateral and specific-non-specific distinctions are closely aligned. Likewise, positive and negative transfer is conceptually similar to specific and non-specific transfer, while near and far transfer is similar to positive and negative transfer respectively. In any case, these distinct types of transfer assistance with identifying transfer, as well as the development and testing of the learning principles.

Traditional Training Design Condition

Learning Principles & Learning Theory Of Training Transfer

One of the underlying reasons why training programs fail to carry over is due (claimed to be) to the absence of learning theory, which rests on the learning principles (Baldwin & Ford, 1988; Latham & Crandall, 1991). The learning principles have been demonstrated to be important for training design through research, which has shown them to increase the probability of training transfer (Baldwin & Ford, 1988; Bahn, 1973; cited in Tziner et al., 1991). For instance, reliance on such learning principles as *identical elements* (Underwood, 1951), *general principles* (McGehee & Thayer, 1961), *stimulus variability* (Ellis, 1961; Catalano & Kleiner, 1984), *conditions of practice*, massed versus distributed, feedback, and over-learning can enhance the transfer of training (McGehee & Thayer, 1961, Naylor & Briggs, 1963; Wexley & Thornton, 1972). Therefore, the learning principles as salient training design factors require discussion as an initial step toward comprehending training transfer (Baldwin & Ford, 1988). Moreover, literature supports the relevance of the learning principles to learning and immediate post-training retention of training material (Mandler, 1954; Mandler & Heinemann, 1956).

Since learning is the basic goal of training, it is necessary to provide an explanation of the learning principles as mechanisms for fostering the learning process. Moreover, the principles of learning are important for both the researcher and the practitioner. For the researcher, the learning principles help pinpoint aspects of a

training program that are deficient, and in so doing provide an explanation of why training outcomes are not realised. For the practitioner, the learning principles are important for improving training design, if the goal is to promote learning (Baldwin & Ford, 1988).

In theory, the principles of learning are supposed to explain why training works. Despite this, their practical application has frequently been haphazard or ignored in training design (Royer, 1979; Muchinsky, 1993). One reason for their neglect may be a certain disregard for the educational and psychological literature. This neglect may be due to the association of transfer with 'training', rather than with learning (Royer, 1979). Neglect may also stem from negative reactions to the experimental paradigm used to demonstrate the learning principles. A third reason may be that they are viewed as non-applicable outside the learning laboratory in which they were developed (Hinrichs, 1976). Despite these limitations, the learning principles warrant discussion in any investigation of training transfer because of their pervasiveness throughout, and their impact on, the practice of training and training transfer.

Identical elements

One of the first, and most accepted learning principle proposed, is linked to identical elements (Royer, 1979; Goldstein 1993). Originally proposed by Thorndike & Woodworth (1901, cited in Royer, 1979) it predicts that transfer from one task to another would occur only if both tasks shared (or identical) elements. Furthermore, the greater the numbers of shared identical elements between tasks in the training and the transfer setting, the greater the chance of transfer. In the present situation 'elements' refers to, *'the shared features of the stimulus environments of the two tasks* (Royer, 1979, pp. 59).' Specifically, one aspect of similarity is the degree to which the actual conditions of training (i.e. surroundings, tasks, and equipment) match the work conditions (physical fidelity). A second aspect of similarity is the degree to which trainees attach similar meaning to training and organisational settings (termed *physiological fidelity*) (Goldstein, 1991; Wexley & Latham, 1981). Empirical support for identical elements has come from verbal behaviour studies (Duncan & Underwood, 1953; Underwood, 1951), and motor skills training (Crafts, 1935; Gagne, Briggs, Wagner, 1992). More recently, research has demonstrated that transfer and maintenance is improved by incorporating job context elements into the training context, rendering

them more similar (Tziner et al., 1991; Leifer & Newstrom, 1980; Wexley & Baldwin, 1986; Wexley & Latham, 1981). Practical applications emphasis the importance of ensuring a match between the training tasks in the training environment and training tasks in the work setting (Goldstein, 1974; Wexley & Latham, 1981).

Thorndike and Woodworth's (1901) theory of identical elements influenced later work. Osgood (1949) formulated the idea of 'transfer surfaces,' in which facilitative and inhibitory transfer is related to the similarity and difference relationship stimulus and responses in an original and transfer task. This is a refinement of Thorndike's and Woodworth's (1901) principle, adding a facilitative inhibitory distinction to the principle of identical elements.

However, the identical elements theory has been criticised because it only predicts transfer in those situations where there is a clear and known relationship between the stimulus elements of the original and transfer task (Royer, 1979). Therefore, in the practical setting where stimulus-response relationships are complex and unclear, identical element theory cannot account for transfer. For example, non-specific or far transfer that occurs between school and the real world has complex, unspecified, and unclear stimulus-response relationships. In other words, *identical elements* relies on specificity to identify transfer, but does not possess a generality that would explain response learning between dissimilar learning and response settings.

A Cognitive view of Transfer

Based on the information processing theory of human learning and memory, Anderson and Bower (1973), and Anderson (1976) developed a cognitive view of training transfer. It is proposed that transfer of learning is a result of comprehension, and the probability of retrieval of prior relevant learnt experiences in a current performance activity. Being somewhat similar to the theory of identical elements, the cognitive theory is dependent on the similarity of features between the learning and transfer situations. However, this theory differs in the depth to which it explains the process of transfer of learning. It is more complex and seeks to explain the underlying processes.

In order to justify the above position it is worth exploring the prior assumptions on which the cognitive theory is based. Firstly, the theory assumes that human memory

is a highly structured system in which information is stored and retrieved in a systematic manner (Royer, 1979). Secondly, memory is organised into knowledge structures (an example is schemata), whose 'richness' (in terms of size and interconnectedness with similar structures) is not constant, but adaptive in response to individual learning experiences (that can enrich and strengthen interconnected).

In addition, the fundamental premise of the cognitive theory is that comprehension is a prerequisite for transfer of learning, although learning can occur in the absence of comprehension (Royer, 1979). The conditions under which we recall the output of relevant learning are dependent on comprehension. In other words, if we fail to understand the learning and the conditions that surround it, then it would be impossible to recognise conditions and situations in which the learning could be applied. This was demonstrated by Bransford & McCarmell (1974, cited in Royer, 1979) who found that subjects could not recognise sentences that lacked context, yet with the provision of the correct context, the meaning of those sentences became clearer. Finally, the transfer of learning cannot be accounted for without considering the process of recall or retrieval. Simply put, recall and retrieval involve a memory search through knowledge structures until the relevant information is located.

To enhance the utility in training interventions, the cognitive theory encourages the development of enriching educational material in order to develop more densely interconnected knowledge structures. Problems should be varied when instructing via a particular learning medium. Critics note that the theory does not cope with figural transfer. Moreover, there is no specification of whether retrieval occurs in a parallel or serial fashion during complex tasks that may require the activation of several knowledge structures simultaneously (Royer, 1979).

Schemata

Authors such as Schmidt (1975) have refined the concept of schema, first floated by Head (1920). Schemata represent an attempt to develop a non-specific learning and transfer theory. Specifically, schemata are abstraction and generalisations invoked when one encounters relevant context and situational cues (Thorndike & Hayes-Roth, 1979). In Schmidt's (1975) view schema theory can be used explain why and how individuals acquire new skills that involve the production of different responses on non-identical,

but partially similar situations or tasks. Schema theory proposes that people can acquire general rules (schemata) with practice in order to deal with a variety of similar and often novel tasks. With increasing practice, the strength and complexity of the schema is increased. Likewise, practice in a variety of similar situations increases the width and versatility of the schema in terms of what it can be applied to (Schmidt, 1975). An advantage of this theory is its ability to explain how people develop flexible and adaptable skills that allow them to respond successfully to novel situations and tasks.

At the cognitive level, schema theory is easily accommodated into the network model, assuming that memory consists of a networks of hierarchically ordered conceptual nodes that are linked through an associative paths along which activity spreads in a serial or parallel manner (Royer, 1979; Thorndike & Hayes-Roth, 1979). Two kinds of schemata can be distinguished. A more abstract structure, which consists of generic entries, can be used in processing frequently experienced events and concepts. It has been linked with the concept of declarative knowledge. For instance, Schank & Abelson's (1977) restaurant schema included the most general level as information such as, '*restaurants are places to eat.*' A level below this might consist of information regarding types of ethnic restaurants. The second kind of schema is associated with procedural knowledge, used when an individual is faced with an activity that requires the systematic execution of specific sub-components for successful performance. For instance, while at the restaurant this schema would activate sub-schemata concerned with holding and manipulating a knife and fork, although the dinner may not be consciously aware of this.

Research in support of schemata has been reasonably strong for both child and adult learning studies. Child studies, including the work of Kerr & Booth's (1978) on the effects of variability training, helped to strengthen schemata as evident in improved performance on additional novel, but similar tasks. Adult studies, such as Johnson & McCabe's (1982), found variability training effective, while Lee et al's (1985) suggested that the effect of variability training was not due to schema development but was rather the result of scheduling.

In terms of the learning, it has been suggested that individuals who encounter a novel situation or task go through a matching process between stimulus and an existing schema. A good match leads to accelerated acquisition of new skills. Where a non-match occurs, learning is slowed as the individual is forced to develop a new schema to cope with the new situation (Royer, 1979). From a transfer of training perspective, schemata offer an explanation of the process that underlies figural transfer by demonstrating the utility of prior learning. According to schemata, skills may be thought of as a set of sequenced steps or procedures that can be performed in a variety of situations where they can be adapted. In the present context, schemata provide another account for the processes underlying transfer of training.

Stimulus Variability

The principles of stimulus variability states that transfer is maximized when a diversity of relevant training materials are utilised during the intervention (Ellis, 1965; Kazdin, 1975). Transfer is enhanced when training design includes varied situations with differential reinforcing stimuli to mitigate the probability of trainees becoming attached to a narrow range of stimulus and response. Bandura (1977a) proposed that a diversity of situational stimuli allows trainees to develop more elaborate personal constructs and/or schemata, which foster innovation and generalisation of skills (Bandura, 1977a). The use of a variety of examples to illustrate a concept may strengthen a trainee's understanding, which in turn aids in their ability to recognise possible sites of application in novel situations (Duncan, 1958; Ellis, 1965). This principle is particularly useful in jobs that are complex and may require a problem solving aptitude. Shore & Sechrest (1961, cited in Bandura, 1977a) found that using a variety of examples resulted in superior learning than using a single example repeatedly when teaching a concept or principle.

General Principles Approach

McGehee & Thayer (1961) proposed that teaching trainees the general rules and theoretical principles that underlie the training material facilitates transfer of learning. This position maintains that the training setting need not reflect the elements or features of the application (work) setting, but merely include the teaching of the general principles of training content (Goldstein, 1993). Crannell (1956), and Goldbeck, Bernstein, Hillix, & Marx (1957) demonstrated that the teaching of general principles in

a series of problem solving experiments illustrated that the treatment group were more adept at solving similar problems in the transfer setting.

Conditions of practice

Mass Versus Distributed Practice

The conditions of practice have received a long period of intermittent attention in the literature. Beginning with Ebbinghaus (1885, cited in Baldwin & Ford, 1988), researchers have found that distributed practice results in better performance than massed practice across a variety of tasks (Hunter, 1929; McGeoch, 1942). Moreover, work by Briggs & Naylor (1962), and Naylor & Briggs (1963) reinforced the idea that information learned under conditions of distributed practice is retained longer than information learned by massed practice. This would support the idea that training should be presented as distributed as opposed to massed sessions. Further, complex tasks show higher performance when massed practice is conducted first, followed by brief distributed sessions with rest periods (Holding, 1965).

Does the distribution of practice influence the process of learning or does it only influence performance? Based on the data of Blodgett (1929), who ran a series of rat-maze experiments, Tolman (1932) proposed that massing might only suppress performance and not learning. Lorge (1930), who (in an experiment where human subjects had to use a mirror to trace a star pattern as their task) found better performance under distributed practice as opposed to massed practice. More recently, the study of massed versus distributed practice has fallen out of fashion. Despite this, the idea still holds merit in the domain of learning transfer where it is included as part of the training design process (Baldwin & Ford, 1988).

Whole Verse Part Training

The principle of whole verses part training practice is concerned with the distinction between practicing with all training material (whole) as opposed to practice with a single segment (part) of training at one time (Baldwin & Ford, 1988). Briggs and Lawrence (1953, cited in Baldwin & Ford, 1988) found that part-task practice was progressively less effective than whole practice in terms of decrease in transfer performance levels. They concluded that it would be more useful to simplify rather than

fractionate a whole task, and more effective to design training schedules where the whole permits the trainee to respond simultaneously to several parts. Likewise, research from Naylor & Briggs (1963) suggested that the whole practice method was superior to the part method in terms of improving training outcomes. This was particularly true when practice was distributed as opposed to massed, where training material was high on task organisation and low on task complexity, and when the intelligence of the learner was high.

Feedback

Feedback is the knowledge of outcomes or results, including information the trainee receives about their performance (Baldwin & Ford, 1988; Adams, 1968, 1987). In an early study by Thorndike (1927), it was found that knowledge of results after learning produced better performance than just repetitive practice alone. Referred to as the *Law of Effect*, Thorndike's (1927) work was later supported by Trowbridge & Cason (1932), who demonstrated that quantitative error produced faster learning than qualitative errors (like 'right' and 'wrong'). According to Wexley and Thornton (1972), and Wexley (1981) it is critical that feedback be present if learning is to be achieved. The effect which feedback has on learning is determined by its specificity and timing, with some suggesting (Blum & Naylor, 1986) that optimal specificity of feedback is dependent on trainee characteristics and the stage of learning.

More recent work on feedback confirms that knowledge of results after response improves performance (Adams, 1987). The two main ways to view this improvement are via association and motivation. The associative view implies that knowledge of results is directive, or 'guiding' so that the learner learns what to do (Adams, 1987). The motivational view assumes that knowledge of results energize the trainee such that they strive to make more of the responses that are already in their repertoire. These functional interpretations are in contrast to Thorndike (1927, 1933), who regarded the *Law of Effect* (feedback) as a function of habituation. Specifically, Thorndike (1927, 1933) believed that knowledge of results 'stamp in' a connection between the situation and the response without the intervention of conscious processes. Both the information view (Kanfer, 1968; 1970; Krasner, 1967; Spielberger, 1965), and the motivational view (Annett, 1969; Locke, Shaw, Saari, & Latham, 1981; Adams, 1978) have received mixed empirical support.

The most recent work on the effects of feedback, includes that of Matrocchio & Dulebohn (1994), who hypothesised that positive feedback during the training facilitated training performance, whereas negative feedback inhibited performance. They proposed that feedback acted as a source of self-regulatory information that triggers the utility of attentional resources as the trainee progresses through training. Additional support was given by Quinones (1995), who acknowledged that individuals who received negative feedback demonstrated lower learning and performance than those receiving positive feedback.

Over-learning

The process of over-learning refers to the provision of practice beyond the point where the task is performed successfully by the trainee in a stable (unchanging with time) fashion (Mandler, 1954; McGehee & Thayer, 1961; cited in Baldwin & Ford, 1988; Wexley & Latham, 1981). Evidence suggests that the greater the amount of over-learning, the greater the retention of trained material (Atwater, 1953; Gagne, Briggs, & Wagner, 1992; Foster, 1949; Mandler, 1954). Hagman & Rose (1983) provided some recent compelling support for the principle of over-learning through the improvement of training retention in a military training program.

Summary

Learning principles and learning theory were discussed, as they are used during the interpretation of findings, and are important for explaining the transfer phenomenon in terms of the training design. This is facilitated with the inclusion of a direct question regarding their use in the design and delivery of training during interviews conducted with the HR manager, training designer, training facilitator. For further discussion on these background interviews refer to Chapter 6 and Appendix V for the interview questions. As it is widely accepted that the learning principles have some merit in training transfer (Baldwin & Ford, 1988), the use or disuse of these principles may, to some degree, explain the level of training transfer.

Contemporary Training Design Conditions

Approaches to Enhancing Training Transfer

Earlier research and practices to ensure training effectiveness emphasised the principles of learning (such as identical elements, and stimulus variability) in training content and training design. While the learning principles contribute to maximising training transfer (Schendel & Hagman, 1982; Baldwin & Ford, 1988), they have been both criticised by researchers and neglected by practitioners, with both parties regarding them as insufficient to explain and promote transfer. To reiterate, the principles of learning transfer were developed in laboratory experiments, involving simple motor and verbal skills (Adams, 1997, Baldwin & Ford, 1988). However, organisational training conducted in natural settings is both more distinct and more complex than training carried out under laboratory conditions. In addition, application of the learning principles may not guarantee full training transfer, which involves maintenance and generalisation of skills (Leifer & Newstrom, 1980; Michalak, 1981). Primarily, traditional approaches are deficient because they focus only on learning during training, while ignoring influences on training transfer before, during, and after training (Leifer & Newstrom, 1980). These factors may help to explain the lower utility of the learning principles and the lack of support for their use in today's training (Gist, Bavetta, & Stevens, 1990).

Of late, emphasis has shifted to the post-training stage of design, as evident in the increasing use of post-training strategies to promote skills maintenance and generalisation to the work setting. In contrasting the traditional and contemporary approaches to training design, the learning principles are 'content-oriented', while today's approaches have been referred to as 'process-oriented,' because the latter emphasise the facilitation of training transfer (Gist et al., 1990). Process approaches concentrate less on learning and immediate retention of training content and more on how to maintain and generalise learning to the work setting. The premise of the process approach is that trainees' self-directed behaviour can facilitate training transfer. One major advantage of the process approach to training transfer is that they do not require changes in training design, but can be attached to enhance training effectiveness (Gist et al., 1990). A second advantage is that process approaches focus on tasks that require

dyadic communication such as conflict resolution and negotiation, differing from simple motor training of the learning principles (Gist et al., 1990). The most common process approaches include behavioural self-management techniques (Luthans & Davis, 1979; Marx, 1982), and goal setting (Locke & Latham, 1984; 1990).

Contemporary approaches to improving training design and facilitate training transfer are discussed because they make-up another portion of the interview questions (Cf. Appendix V) directed at the HR manager, training designer, and facilitator. Like the learning principles, the use or otherwise of these contemporary approaches may explain why training was effective or ineffective (see interpretation of the research findings in Chapter 7). Finally, a review of the learning principles, and these design factors was included because they represented one intervening factors, transfer design, in the 'Evaluative Research & Measurement Model,' and instrument adopted for this study, the Learning Transfer Questionnaire (Holton et al., 1997) discussed later in this Chapter.

Behavioural Self-Management

Behavioural self-management (BSM) defined as, *'the deliberate regulation of stimulus cues, covert processes, and response consequences to achieve personally identified behavioural outcomes,'* was popularised by Luthans and Davis (1979, pp. 44). BSM assists employees with their cognitive and emotional struggle when confronted with a mass of organisational stimuli, which can inhibit or enhance goal attainment.

In terms of training transfer, BSM assists trainees to recognise cues (stimuli) within the work environment that prompt the use of newly trained behaviours (Frayne & Latham, 1987; Latham & Frayne, 1989; Marx, 1982; Wexley & Baldwin, 1986; Gist, Stevens, & Bavetta, 1991). Behavioural self-management (BSM) proposes that situational stimuli, trainees' feelings about these stimuli, and the outcomes that result from action all act to mediate and influence trainees' application of newly learnt skills. It is thought that behavioural self-management works by helping trainees' to retain desirable behaviours and reduce dysfunctional behaviours by introducing guided cues to work situations. The guiding cues activate thoughts and feelings about training to foster consequences that influence behaviours, which reflect training.

In practice, behavioural self-management typically involves identifying problem situations, generating strategies for coping with these situations, setting goals for the situation, monitoring goal attainment, and self-administered reward and sanction based on goal attainment (Frayne & Latham, 1987). Empirical support for BSM has come from Frayne & Latham (1987) who found an increase in training attendance, and propensity to apply (generalise and maintain) trained skills in a group of government employees' who used BSM. Gist et al's (1990) proposed that behavioural self-management promoted course preparation, practice before actual task performance, and increased training transfer.

Marx Relapse Prevention Model

Based on the relapse prevention model of Marlatt & Gordon (1980) for addictive behaviour, Marx (1982) proposed a relapse prevention model as a behavioural self-management strategy to facilitate training transfer. The relapse prevention model extends the BSM approach by equipping employees with coping mechanisms to manage work context factors that can inhibit the use of new skills. Relapse here refers to a reversion to pre-training behaviour in specific on the job situations (Marx, 1982). The model predicts that anticipating future failures and monitoring past and present ones will enhance long term behavioural change.

Consisting of a series of discrete steps, the relapse prevention model begins with the identification of on the job situations and factors that can sabotage attempts to maintain new learning (training transfer), referred to as 'high-risk situations' (Noe, 1986). By identifying the situational threats, the trainee will be able to monitor the situation and know when and what to do in order to cope. In other words, information (i.e. situational feedback) from episodes of failure is used to equip individuals with coping mechanisms for dealing with future difficult situations (Marx, 1982). Although not explicit, the formation of coping strategies can be regarded as a form of goal setting (Wexley & Baldwin, 1986). Subsequently, the model advocates the use of behavioural and cognitive coping strategies to mitigate losses in self-efficacy, increases in stress when confronted with poor performance, and facilitate long-term maintenance of learned behaviour (Marx, 1982). Thus, the model attempts to reduce training relapse by teaching trainees to understand situations of relapse, and by equipping them with post-training coping strategies (e.g. cognitive and behavioural self-control). The strategies

can be assigned to or generated by trainees' post-training prior to return to work, where they are refined to suit the needs of the individual trainee and their situation (Marx, 1982). Successful use of coping strategies allows the trainee to persist in learning practice, which should led to improvements in performance and self-efficacy.

Empirical support for the relapse prevention model has come from Tziner and Haccoun (1991), who demonstrated that those who benefited from relapse prevention showed higher post-training mastery. They also found that transfer is more likely when trainees learn relapse prevention strategies relevant to their work situation.

Goal Setting

Among the first to propose the use of goal-setting as a post-training transfer strategy, Feldman (1981) suggests that after training, trainees should be assigned (or encouraged to set) specific behavioural goals. The goals need to link training to the jobs. Moreover, trainee's supervisors should monitors goal attainment by providing trainees with feedback on their attainment progress. Anderson & Wexley (1983) advocated the use of participative/collaborative goal-setting, in place of assigned goal-setting because it would increase ownership of goals and enhance training transfer. Goal setting is a motivational technique for improving task performance across situations (Locke & Latham, 1990), and training transfer (Tziner, Haccoun & Kadish, 1991). To achieve this, goal setting operates through three motivational actions: *choice or direction, arousal or intensity, and duration* (Locke & Latham, 1984, 1990). Goals affect choice by directing people's attention and actions towards goal-oriented activities. Goals affect arousal by regulating the intensity of effort that individual's apply to tasks, and goals affect duration by promoting persistence until goals are achieved. In addition, it is thought that goal setting provides a cue for enhancing self-efficacy, which in turn results in greater trainee commitment to attempt new skills on the job (Frayne & Latham, 1989).

Several researchers have found that goal setting leads to an increase in post-training skill application and maintenance (Wexley & Nemeroff, 1975; Anderson & Wexley, 1983; Russell, Terborg, Powers, 1985; Locke & Latham, 1984, 1990; Wexley & Baldwin, 1986; Frayne & Latham, 1989; Marilyn & Gist, 1991). For instance, Wexley & Nemeroff (1975) reported that goal setting improved the application of new skills learnt in a management development program in a population of hospital

supervisors. Anderson & Wexley (1983), Locke & Latham (1984, 1990), Marilyn & Gist (1991) have demonstrated that setting behavioural targets lead to higher transfer. Locke & Latham (1984, 1990) showed that goal setting induced behavioural changes in many situations. In a comparative investigation, Wexley & Baldwin (1986) contrasted self-management and two goal-setting approaches (assigned and participate goals). They found that: (1) all post-training transfer strategies facilitated behavioural maintenance; and that (2) both assigned and participative goal setting (with participative the most successful) resulted in higher post-training behavioural maintenance and skill generalisation compared with behavioural self-management. In contrast, Gist et al (1990) documented that trainees in a *self-management condition* out-performed those in a *goal-setting condition* on novel complex tasks in term of training transfer. Goal setting did promote greater effort and persistence during task performance. Despite these differences, both goal setting and behavioural self-management have proven themselves as powerful strategies for promoting transfer of training.

Models of Training Transfer

Linking Training Design, Trainee Characteristics, & Work Environment with Training Transfer

Until more recently one of the major problem of transfer research has been the lack of a guiding theoretical framework (Baldwin and Ford, 1988; Quinones & Ford, 1995; Holton et al., 1997). This is largely reflected in the dynamic, complex, multivariate, and highly interactive nature of the transfer of training phenomenon (Quinones & Ford, 1995). Subsequently, a multitude of models have been proposed which attempt to identify and account for factors impacting on training transfer. Many models overlap in their ideas, but differ enough in both their interpretation and identification of influential transfer factors to warrant discussion. Broadly speaking, most models identify factors that can be grouped into training design, trainee characteristics, and the work environment influences on transfer of training.

The development and testing of models and theories of transfer of training is important for providing a theoretical basis to guide researchers to causal explanations.

Models are also required as a basis of explaining effectiveness, predicting effectiveness, and modifying conditions to improve transfer of training (Facteau et al., 1995; Holton et al., 1997; Baldwin & Ford, 1988; Noe, 1986; Wexley & Baldwin, 1986). More importantly, empirically supported theoretical frameworks can guide training practitioners away from common training design and delivery mistakes in training practices. Baldwin and Ford (1988, p. 64) offered the best justification for a framework when they said, '*that an examination of transfer issues requires a clear understanding of what is meant by training transfer as well as the identification of factors that affect transfer.*' Moreover, theoretical and empirical research is needed that identifies, defines, and operationalise the influence on training effectiveness so that the training field can move from a question of 'whether training works' to 'why training works' (Campbell, 1988, 1989; Tannenbaum & Yukl, 1992; Tracey & Tannenbaum, 1995).

Many authors including Huczynski & Lewis (1980, 1988), Noe (1986), Noe & Ford (1992); Baldwin & Ford (1988), Richey (1992), Foxon (1994), Yelon (1992), Garavaglia (1993, 1996), Tracey, Tannenbaum, & Kavanagh (1995), Cannon-Bowers, Salas, Tannenbaum, & Mathieu (1995), and Holton (1996, 1997) have offered conceptual models of factors affecting training transfer. The review of the models and theoretical explanations of transfer of training below is not exhaustive. An attempt was made to present the major contributions. In particular, four models were not reviewed because they brought nothing new that had not already been covered by the other frameworks. These included Mathieu, Tannenbaum, & Salas (1992) *Model of Antecedents of training Motivation* based on valence-instrumental-expectancy; Mathieu, Martineau, & Tannenbaum (1993) *Model of Individual & Situation Influences of Self-Efficacy and training effectiveness*; Quinones et al's (1995) *Direct Effects and Mediated Effects Models of Individual & Transfer Environment Characteristics on the Opportunity to Perform Trained Tasks*; and Gregoire, Propp, & Poertner's (1998) *Model of Transfer of Training*. Subsequently, the appeal of Holton et al's (1997) instrumentation influenced adherence to Holton's (1996) *Evaluation Research & Measurement Model* as the primary guiding theoretical framework for this study. This model will be considered in detail later in this chapter.

Huczynski & Lewis (1988) Model

Huczynski & Lewis (1988) offers an interpretation of training transfer in their inductive

model of factors that affect the management of training transfer process. The model suggests that an individual's motivation to transfer learning can be enhanced by allowing the trainee the choice to participate in training, and/or the training design. For instance, in regards to the second point, trainees should be able to discuss the aims and objectives of the training with the training designer and/or their supervisor. In other words, trainees should be included in the needs analysis for the training intervention prior to its application. Moreover, trainees should be involved in discussions on the training process that centre on the application of learning back in the work environment. To enhance the probability of training transfer further, the supervisors should play a vital role as a supporter or 'sponsor' to the incorporation of new learning behaviors into existing work systems.

The Huczynski and Lewis (1988) model suggests that the work environment operating through the trainee's immediate supervisor can produce a work climate that is either low or high in support. Specifically, the work environment can either enhance or inhibit the application of new skills through the organisational climate, which operates as an influence born of the immediate supervisor facilitative or inhibitory behaviours. It is these supervisory behaviours that act to signal to the trainee the value of the new learning to the supervisor and organisation. In fact, the major conclusion of their research was that the supervisor is a pervasive influence on the trainee in all phases of the learning and the transfer process. The supervisors' influence acts on the trainees before and after the training. Not only can the work environment provide important facilitative influences; it can reduce the influence of inhibitory factors. For example, management could rearrange a trainees work routine to reduce work pressures, thus allowing time and opportunity to practice new skills on the job.

The following diagram depicts the model proposed by Huczynski and Lewis (1988). It is evident from the diagram that the supervisor plays a critical role in all aspects of the transfer of training process. Moreover, this model demonstrates the important links and distinction that the authors made between the influential factors of the training course, the work environment and the trainee.

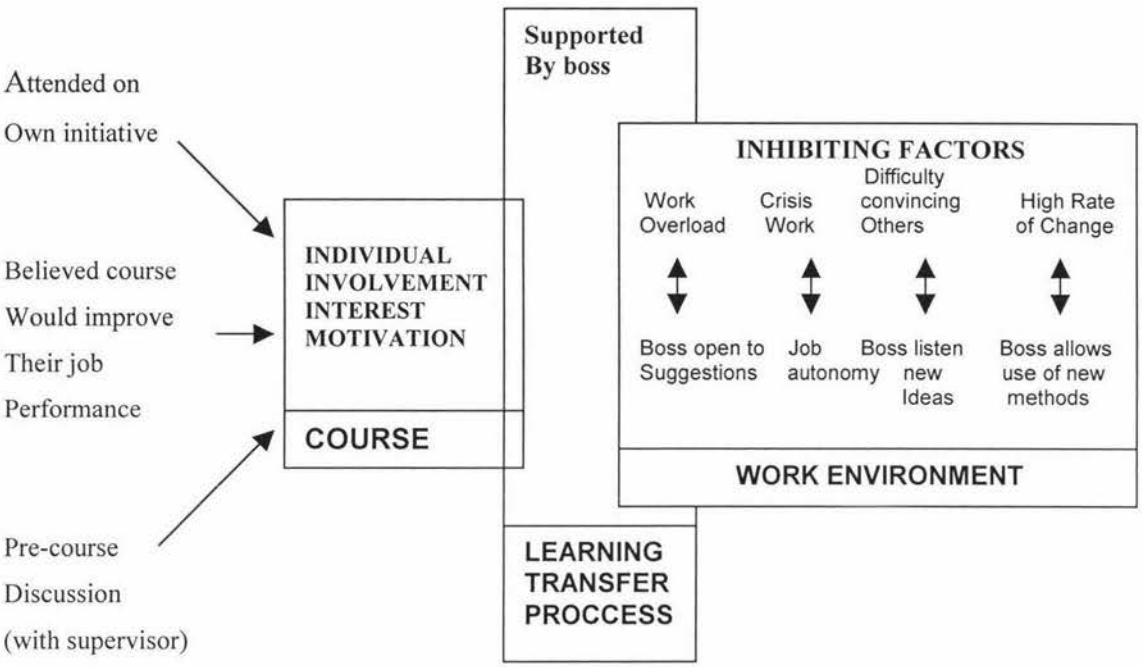

Figure 3.1. Huczynski & Lewis's (1988) Model of Factors Affecting the Management Training Transfer Process.

However, the model is limited in that it cannot be readily generalised beyond the context in which it was developed due to a lack of replicating investigations. It may be that for this type of management training the supervisor is a pervasive force, yet in other training other factors may be equally, or more important. For instance, Jones & Roger (1972, cited in Garavaglia, 1993, 1996) found that trainees' peers were an additional potent force influencing training transfer.

Noe Model

The purpose of Noe's (1986) model was to identify and integrate motivational and situational concepts into a framework that described the influence of trainees' attributes (except trainee ability) and attitudes on training effectiveness. In this model, training effectiveness was conceptualised in terms of Kirkpatrick's (1967) hierarchical model of training outcomes. The model identified trainee attitudes and attributes that influence the trainees' motivation to learn and subsequently apply newly acquired learning in their work.

Beginning with the locus of control, the model proposes a three-fold effect on reactions to skills assessment, expectancies, and career and job attitudes. Locus of control as described by Rotter (1966) suggests that individuals who internally believe that job performance and events in the work setting are contingent on their own behaviour are under *'personal control'*, whereas those who perceive the opposite are under '*external control'*. It follows that individuals under internal control are more motivated to train, and better equipped to learn because they attribute work outcomes to their own actions, with the opposite being true for external control individuals. Consequently, Noe (1986) hypothesised those individuals with an internal locus of control perceive skill assessment and feedback as positive opportunities upon which they can act. Those with an external control see it as beyond their control and therefore less acceptable and negative. Locus of control was hypothesised to affect career and job attitudes in terms that internal control leads to greater career planning, job involvement and greater job satisfaction (Noe, 1995). Finally, trainee expectancies were linked to locus of control via effort-performance and performance-outcome perceptions. In the first instance, individuals with an internal locus of control are hypothesised to have greater self-efficacy and therefore exert greater effort in order to cope with new work demands, and strive for higher performance. In the second instance, performance-outcomes, trainees differ in the extent to which they believe (expect) training programs are related to favourable performance, outcomes, and mastery of training content.

A link between self-efficacy and motivation to learn was proposed in which beliefs about effort-performance, enthusiasm towards training, and persistence in training were associated with levels of self-efficacy, expectancies and locus of control. Therefore individuals high on these factors (internal control, self-efficacy, and performance-outcome expectancies) are more likely to acquire knowledge and skills and demonstrate greater behavioural change and performance improvement than trainees low on these factors, who will be less motivated to learn.

Noe (1995) proposed four conditions necessary for high motivation to learn. Firstly, trainees must perceive assessment as accurate. Secondly, trainees must believe that they can master course content, which in turn is associated with desirable outcomes. Thirdly, motivation is a product of the degree to which trainee's identify with their job and involve themselves in career planning. Fourthly, work environments that are

perceived as supportive, equipped for job performance, rich in feedback, and possessing open communication are more motivating for learning during training. The model predicts that motivation to transfer (which here was described as trainees' desire to use the skills and knowledge mastered in training on the job) is based on: (1) trainees' confidence in their use of skills; (2) their perception that the new skills will lead to better performance; (3) the belief that the work setting is supportive of the new skills; and (4) their belief that the skills are 'useful' for the resolution of job demands.

The final input component of the model is the perceived level of environmental favourability. This factor is hypothesised to influence motivation to learn and transfer via the influence of task components and social components. Task components refer to the availability of resources and equipment, which affects the degree to which new skills are constrained in the work setting. The social components refer to the opportunities to practice skills and the opportunity to receive feedback and reinforcement from supervisors and peers.

In conclusion, the input factors in Noe's model are suggested as determinants of training effectiveness in terms of Kirkpatrick's (1967) (level of training outcomes) criterion. In essence, the model summarises a large body of the research in terms of the influence of trainee attributes, attitudes, and the work environment on training transfer. Noe (1986) did not test the proposed model, Facteau et al (1995) provided empirical support that showed the validity of Noe (1986) model for different types of training. The following illustration is a depiction of Noe's (1986) motivational factors influencing training effectiveness.

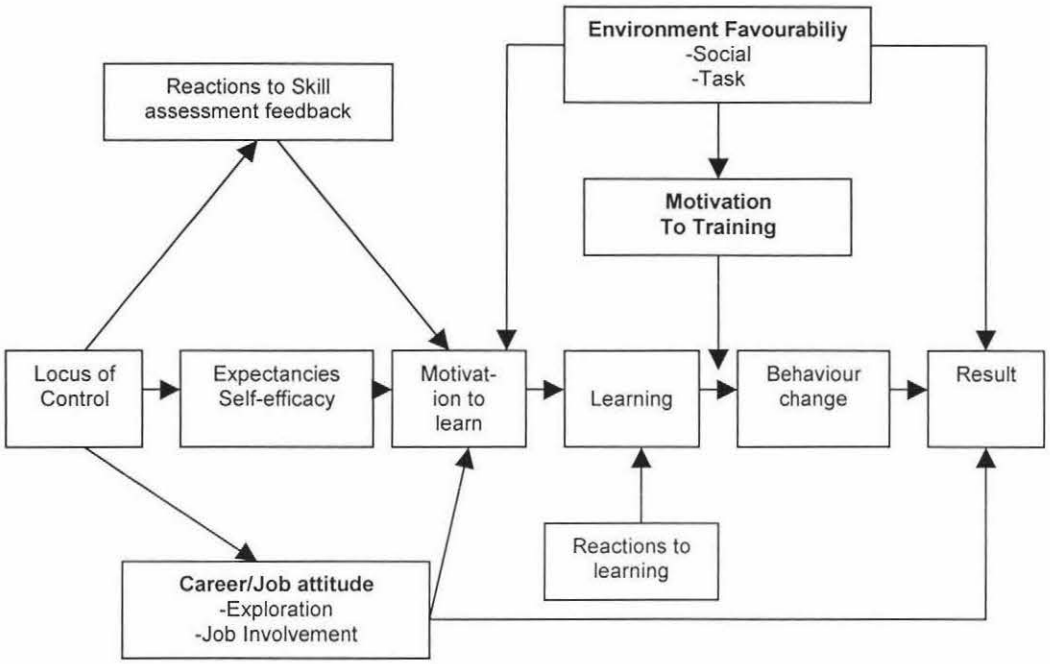

Figure 3.2: Noe's (1986) Model of Motivational Influences on Training Transfer

Baldwin & Ford Model of the Transfer Process

Baldwin & Ford (1988) attempted to bring coherence to transfer research by proposing a comprehensive framework of factors they believed affected the transfer of training. In their model of the transfer process, they describe the transfer in terms of training inputs, training outputs, and conditions for transfer. Working through the model (Cf. Figure 3.3) the training inputs refer to factors that must be present as pre-condition for the next step, the training outputs. The training inputs include the trainee characteristics, the training design, and the work environment. At the next level the training outputs refer to the amount of initial learning that occurs during the training intervention and the degree to which that material is retained (retention) after training. Finally, Baldwin & Ford (1988) described the conditions for transfer as the generalisation of learning from the training context to the work setting and the maintenance of that material over time back in the job.

Among the training inputs, involving trainee characteristics, the training design, and the work environment, a number of factors have been identified as important predictors of training effectiveness (Baldwin & Ford, 1988). Since the publication of the Baldwin & Ford model, evidence for the proposed trainee characteristics has been

reported. For instance, ability and aptitude (Robertson & Down, 1976, 1989); locus of control (Noe & Schmitt, 1986; Noe, 1986; Cannon-Bowers, 1995; Tracey et al., 1995); motivation (Noe & Schmitt 1986; Mathieu, 1992; Cannon-Bowers, 1995); organisational commitment (Noe, 1986; Facteau et al., 1995; Axtell, Maitlis, & Yearta, 1997); job involvement (Mathieu et al., 1992; Tannenbaum, Mathieu, Salas, & Cannon-Bowers, 1991); and self-efficacy (Noe, 1986; Ford et al., 1992; Cannon-Bowers, 1995) have been found to predict and influence training effectiveness. The work environment factors, including, supervisory and peer support (Fleishman, 1953, 1955; Noe, 1986; Ford et al., 1992; Rouiller & Goldstein, 1993; Holton, 1997); organisational climate (Sullivan & Dunn, 1978; Rouiller & Goldstein, 1993; Tracey et al., 1995; Holton, 1997); and autonomy (Vandenput, 1973; Huczynski, 1978; Huczynski & Lewis, 1980,1988) have been shown to be important predictors of training transfer. Finally, training design factors such as the use of learning principles (Base & Vaughan, 1966; Baldwin, 1987; Cominsky, 1982; Cormier, 1984); training relevance (Goldstein, 1986; Cannon-Bowers, 1995); and the sequence of material presented in the training (Gagne, 1962; Bass & Vaughan, 1966; cited in Baldwin & Ford, 1988); have been documented as significant to effective training.

The model goes on to indicate that training outcomes and training input factors have both a direct and indirect effect on the conditions for transfer. Baldwin & Ford (1988) specified six linkages (Cf. table 3.3) to highlight the process of training transfer.

In summary, Baldwin & Ford's process model of training transfer illustrates the complexity and dynamic multivariate nature of transfer. The model provides a suitable theoretical basis for research endeavors into training transfer. It has been supported as indicated from empirical research. Garavaglia (1996) gives a favourable review, while researchers such as Axtell et al (1997) have used it in an investigation of immediate and long-term transfer. Most literature reviews since the models introduction have emphasised it (Holton, 1997; Goldstein, 1993; Rouiller & Goldstein, 1993; Tracey, et al., 1995). The following diagram represents the model as proposed by Baldwin and Ford (1988). The table lists linkages between input, output, and 'conditions for transfer' factors.

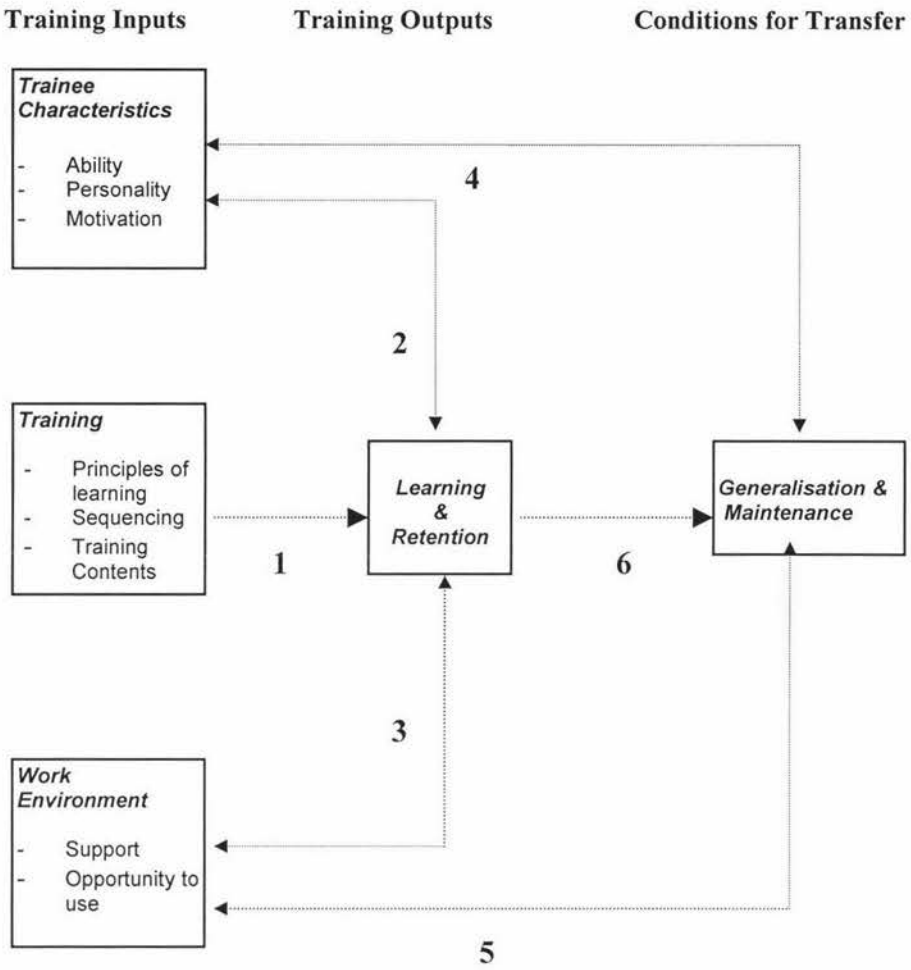

Figure 3.3: Baldwin & Ford's (1988) Model of the Training Transfer Process

Linkage	Effect	Description
1	Direct	Training design factors directly affecting learning and retention.
	Indirect	Training design factors indirectly affecting generalisation and maintenance through their impact on learning and retention.
2	Direct	Trainee characteristics directly affecting learning and retention.
	Indirect	Trainee characteristics indirectly affecting generalisation and maintenance through their impact on learning and retention.
3	Direct	Work environment directly affects learning and retention.
	Indirect	Work environment indirectly generalisation and maintenance through its impact on learning and retention.
4	Direct	Trainee characteristics directly affect generalisation and maintenance regardless of initial learning during training or retention of learned behaviour
5	Direct	Work environment directly affects generalisation and maintenance regardless of initial learning during training or retention of learned behaviour

6	**Direct**	Learning retention directly affects generalisation and maintenance. Skills must be learned to transfer.

Table 3.3: The Six Linkages within Baldwin & Fords (1988) Model

Systemic Model of Factors Predicting Training Outcomes

The so-called 'systemic model' of factors predictive of training outcomes takes a holistic perspective by including factors beyond the immediate training intervention (Richey, 1992, cited in Garavalgia, 1993, 1996). The model (CF. figure 3.4) attends to trainee background factors, including age, education, training experience, and work setting. It is suggested that age accounts for changes that occur as the employee gains training experience, which carry over to influence training motivation and trainee capacity to learn. Education and training experience include what is gained at both school and work, which influence subsequent training attitudes and training outcomes. For instance, if a trainee was subjected to negative work and or educational experiences then the model predicts the formation of negative attitudes, resulting in lowered training outcomes. Trainee attitudes and training outcomes are enhanced if work experiences promote the incorporation of new learning with existing learning. Trainee attitudes consist of attitudes towards training, the delivery of training, which affect training outcomes.

The present model conceptualised the training outcomes as changes in knowledge, attitudes, and behaviour. Rickey (1992) found that only the most effective training could be used to establish a direct causal link between knowledge and attitude, with a subsequent link between attitude and behaviour.

The initial measure of training outcomes is used as a comparative baseline of measured behaviours, including trainee and co-worker (peers) behaviour, employee empowerment, and physical work conditions, trainee attitudes and training outcomes. Finally, the instructional design and delivery refers to the degree of training needs analysis, and the manner in which the training was actually run.

There is little empirical support for either the structural design, or the selection of key variables or their relationships. There is no empirical justification for the final form of the model, which, in some authors' views, reduces it to a collection of speculative themes. Finally, the model fails to clearly define key variables, making operationalisation difficult. For example, trainee attitudes is proposed to consist of attitudes to training and training delivery, yet these variables are not defined in a manner that would permit systematic investigation. Likewise, the model does not state the rationale for the direction and choice of links between model variables.

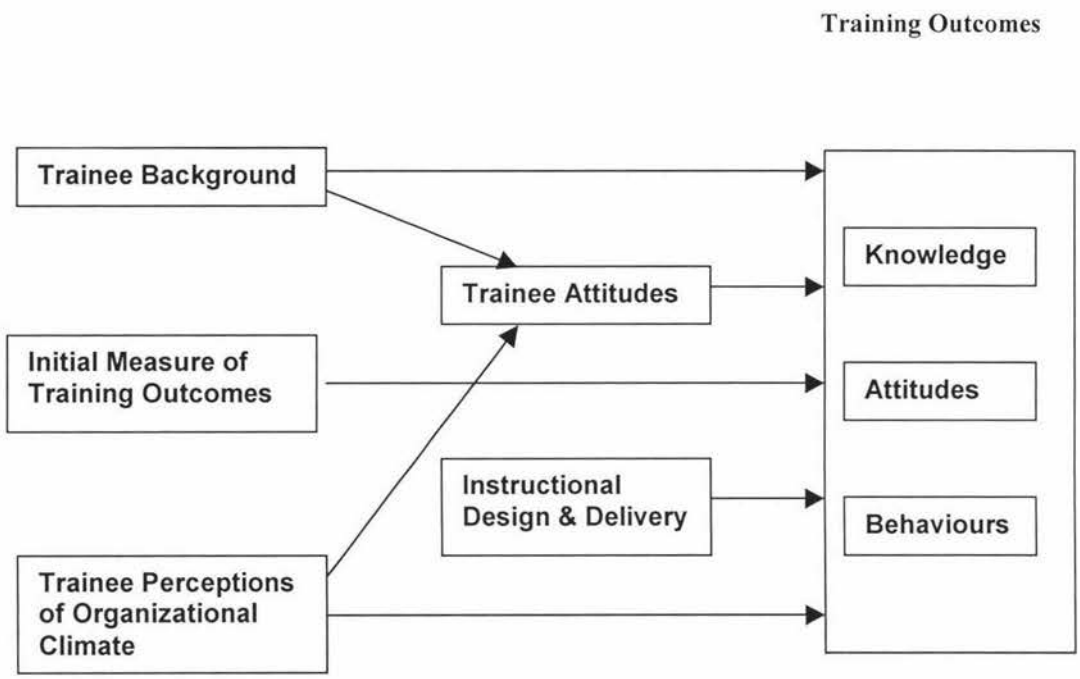

Figure 3.4: Richey's (1992) Systemic Model of Factors Predicting Employee Training Outcomes.

Stages of Transfer Model

Foxon (1994) proposes that training transfer is a product of inhibitory and facilitative factors in a five-step process that begins with an intent to transfer, progresses through initiation, partial transfer, conscious maintenance, and finishes with unconscious maintenance. Each step serves as a prerequisite for the following step in the model. The purpose of Foxon's (1994) model is to provide a theoretical interpretation of what occurs when trainees' attempt to applying training back in the work environment. The model stipulates that failure to transfer is greater in the initial stages, but reduces as one progresses successfully through the steps to 'optimal transfer.'

The 'intent to transfer' can be defined as the trainees' disposition to apply what they have learned in training to jobs (Foxon, 1994). Underlying this is the trainees' motivation to use new learning, strengthened by cues they receive from their immediate work environment and the larger organisational environment.

The 'initiation' step refers to tentative initial attempts by trainee to apply what they learned in training to the job. Foxon (1994) identified 128 factors that could result in the trainee discontinuing in their application of their training on the job. These inhibitory factors were subsequently grouped into four categories: organisational climate, training design, individual learning characteristics, and the manner in which training is delivered.

The next step in the process is 'partial transfer', where only some of the trained skills are applied to the job. Partial transfer can result from a lack of opportunity, lack of confidence, lack of use, low motivation, and a failure to master the trained skills. Conscious and unconscious maintenance appears as the final two stages in the model in which new behaviours are maintained over time on the job. Conscious maintenance occurs when the employee decides to use what they have learned in their jobs. There is a purposeful intent on the trainees' behalf to use the skills as a part of their job ability. Optimal transfer occurs when learned skills are applied to the job across time without the awareness of the trainee (unconscious maintenance). At this stage, the learnt skills become a part of the employee's repertoire of daily work abilities.

Because the process of transfer is subject to so many external influences, transfer failure can occur at any stage in the model. For instance, several of the inhibitory factors could interfere with transfer of training. The strength of this model is clearly acknowledgement that transfer is a process subject to multiple external and internal influences. Moreover, the inclusion of a chronological scale, which highlights a high risk of transfer failure immediately following training, point to the need to gather initial post-training feedback from the work environment (Baldwin & Ford, 1988). The model is yet to receive empirical support.

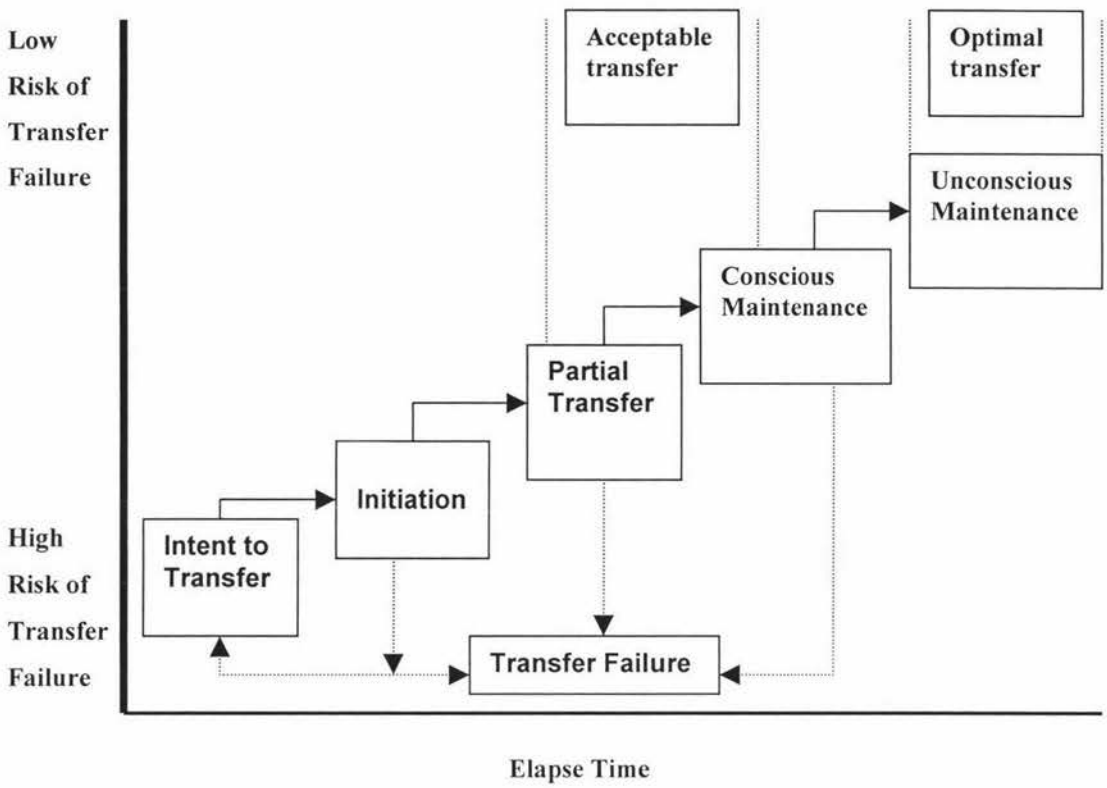

Figure 3.5: Foxon's (1994) Stages of Transfer Model

Yelon (1992) MASS: A Model for Producing Transfer

Yelon's (cited in Garavalgia, 1993, 1996) point of departure is that that trainers need to become training technologists. Trainers who assume this role can: (1) motivate others to learn and use training material, (2) increase awareness of when to use new skills, (3) enable trainees to master and apply skills, (4) and give trainees support upon their return to the work setting.

To become motivated to learn and transfer, trainees must want to achieve organisational goals by increasing their work competence. To reach this, trainees must believe in their ability to achieve organisational goals (self-efficacy). The training technologist can assist by ensuring the trainees perceive the training material as relevant, and by assessing and instigating a supportive work environment. The trainer must establish links between training and the job by teaching the importance of new skills with the use of relevant work examples in which skills can be applied. In addition, contrast between poor performance and good performance should be stressed and demonstrated such that trainees can develop a 'model' of what the organisation means

by good performance.

At the most critical level, that of training transfer, the training technologist should ensure that trainees have mastered the new skills in that they know how to apply what they have learnt. Following the principle of identical elements, Yelon (1992) proposes that the training situation should reflect the real work situation in as many ways as possible. This can be enhanced by giving trainees 'real problems' to solve that match the task on the job. The only difference is that the training environment is controlled and non-consequential. Trainees should be provided with conditions for practice, by allowing opportunities to rehearse and practice their new leaning under conditions in which they can receive corrective feedback.

Finally, Yelon (1992) recommends support for trainees before, during, and after training, with the organisation playing a vital role through supervisory support and guidance. Opportunities should be given to exercise, maintain, and improve skills on the job. No empirical support was available for the model.

Garavaglia Transfer Design Model

Similar to Foxon's (1994) stages of transfer model, Garavaglia (1996) views transfer as a process. In fact Garavalgia's (1996) model summarises components of several of the previously mentioned models, including Baldwin & Ford (1988) model of transfer process; Rickey's (1992) systemic model of factors predicting employee training; and Yelon's (1992) MASS model. The model is a refinement of some previously mentioned models.

The model begins with the *'initial performance measure'*, which includes a base line measure to be improved with training. This is similar to Richey's (1992) model, where an initial measure of training outcomes is taken as a baseline comparison. The next block is the 'systemic design factors'; a term for factors other than the training design and delivery, including the work environment and the trainee characteristics. In essence, this block is a combination of Baldwin and Ford's (1988) trainee characteristics and work environment factors, and Rickey's (1992) trainee background factors. The Garavaglia model includes a wider range of *'systemic design factors'* than its predecessors such as trainee emotion; goal setting and self management techniques;

realistic versus optimistic overview; perceived relevance of training; self-efficacy, and expected outcomes.

Concurrently, attention is given to *'instructional design factors,'* which refers to the preparation and planning that went into training design (including needs analysis and the use of the learning principles). Other factors include linking of training material with the work setting and work functions; the exploration of training material prior to learning; the involvement of trainees' in design; and opportunity to practice learning during and after training. Following, *'training'* is the next stage representing the actual delivery of learning material to trainees. Here consideration should be given to the pace of learning, the nature of the training material, and its links to goals of training and job performance.

After training the trainee returns to the role of employee, where they enter the *'maintenance system'* phase in which there is a need to promote and foster the application of newly acquired learning. Baldwin & Ford (1988) called this 'generalisation and maintenance', while Yelon (1992) referred to it as 'support'. In Garavaglia's (1996) model supervisors need to give appropriate support and feedback to trainees on their return to work, although how it should be administered is not outlined.

Garavalgia (1996) goes beyond other models by specifying a need for a transfer performance measure. He believes that by comparing initial pre-training performance with post-training transfer performance, organisations will be able to identify those unique factors in their training systems and work environments that inhibit or facilitate training transfer.

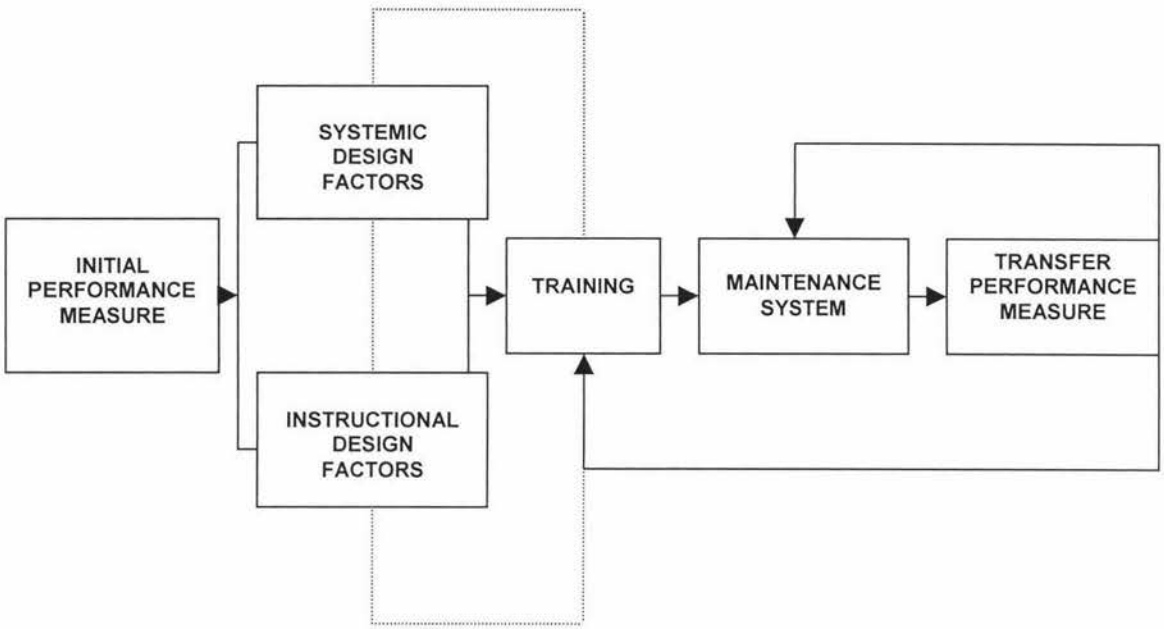

Figure 3.6: Garavaglia (1994) Transfer Design Model

Tracey, Tannenbaum & Kavanagh Model

Using Kirkpatrick's (1967) and Alliger & Janak's (1989) criterion of training effectiveness, Tracey et al's (1995) proposed and tested a model of training transfer. In this model, it was hypothesised that climate and culture had both a direct and moderating effect of post-training job behaviour. Accounting for pre-training behaviour and pre- and post-training knowledge, it was found that climate and culture were related to training transfer as indicated by post-training behaviour.

What was original at the time Tracey et al's (1995) published their work, was the concept of a continuous-learning culture as a sub-component of organisational culture. They discovered that a continuous-learning culture is an important aspect for understanding the application of training behaviours. Simply put, a continuous-learning culture is one in which the acquisition of knowledge and skills is the responsibility of all employees in an environment which is supported through social interaction (Roger & Zagar, 1988; cited in Tracey et al., 1995). At the organisational level, formal systems provide opportunities for performance and development (Dubin, 1990; cited in Tracey et al., 1995). There is an emphasis on innovation, external and internal competition.

Extending Goldstein's (1993) concept of climate as a determinant of training transfer and including the continuous-learning culture, Tracey et al (1995) found compelling support for the direct effects of these concepts on training transfer. However, less evidence is reported for their pre-training and pre-knowledge variables (Alliger & Janak, 1995). Despite this, Tracey's et al's (1995) model of transfer of training provided fresh insight into the transfer phenomenon through their examination of both culture and climate, and through their inclusion of a continuous-learning culture and its importance to training transfer. This model thus provides a starting point for the diagnosis of work environments that may be inhibitory to training transfer, which has implications for improving training effectiveness. Following is a depiction of Tracey et al's (1995) transfer of training model with directional links between variables.

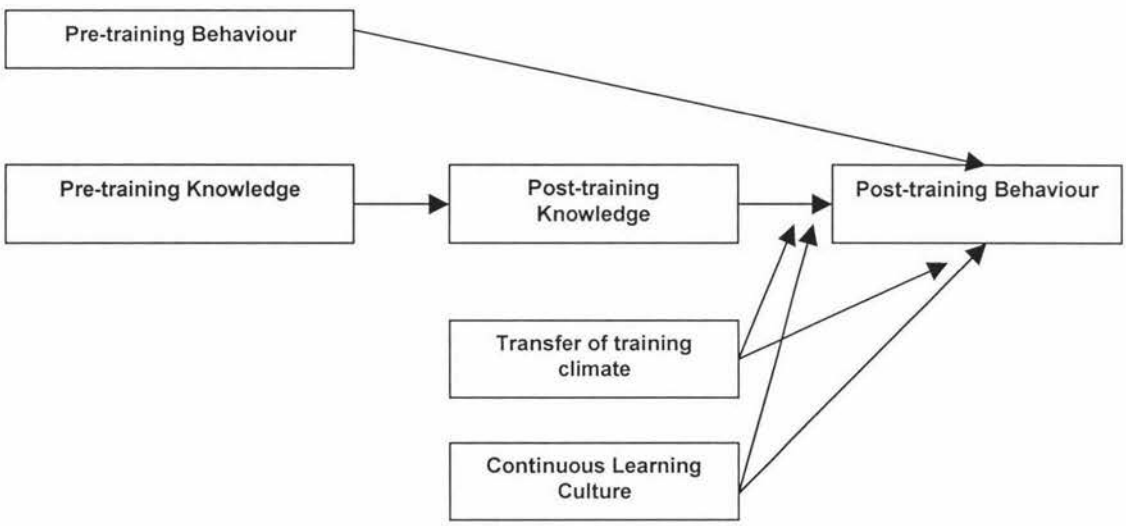

Figure 3.7: Tracey, Tannenbaum, & Kavanagh (1995) Model of Transfer of Training

Cannon-Bowers, Salas, Tannenbaum & Mathieu Model of Training Effectiveness

In an investigation of training transfer on a Navy recruitment-training program, Cannon-Bowers et al's (1995) conceptualised training transfer in terms of training effectiveness. Training effectiveness was defined according to Kirkpatrick's (1967) four-level hierarchy of training evaluation. Considering Alliger & Janak's (1989) review of Kirkpatrick's (1967) model, Cannon-Bowers et al (1995) developed a comprehensive model of training effectiveness (Cf. Figure 3.8). The model considers training effectiveness as a process that runs before, during, and after training. Focusing on

characteristics of the work environment and the trainee, this model is based of the grounding work of many of the previous discussed theorists, including Baldwin and Ford (1988), and Tannenbaum, Bower, Salas, and Mathieu (1993).

It is proposed that organisational characteristics have an impact both before and after training. Before training, organisational characteristics influence trainees' training expectations, motivation to learn, which subsequently have an indirect effect on training effectiveness. Organisational politics and climate intervene to shape trainees expectations about training. After training, organisational variables influence trainees' motivation to transfer and apply learning, which directly affects job performance. Other factors such as resource availability and opportunity to apply skills also directly affect job performance. Trainee characteristics, including self-efficacy, locus of control, cognitive ability, expectations, organisational commitment, pre-training motivation, were hypothesised to impact on training effectiveness.

As mentioned, the model relies on the work of Kirkpatrick (1967), but extends it by considering behavioural change at two levels: performance in training and performance in the job. The rationale is that a trainee may be able to perform a target skill at the conclusion of training, but be unable to apply it to the job for a number of reasons. This distinction was based on the work of Baldwin and Ford (1988), who defined a number of organisational and trainee characteristics that preclude successful application of training to the job. A further refinement to the model comes from the work of Alliger & Janak (1989), who revised Kirkpatrick's (1967) model and removed the hierarchical link between trainee reactions and learning. Specifically, trainee reactions are not simply a matter of learning on the training, but subject to external forces, which not only affect learning, but more importantly performance.

In an empirical test of the model, the postulated factors were all significantly related to training effectiveness. For instance, self-efficacy, commitment, desire, and expectations were positively related to pre-training motivation. The first two factors resulted in greater performance expectations when trainees possessed high levels. Cannon-Bower et al (1995) suggest that no matter how well training is designed, it may not be entirely effective because of incompatibility with trainee attitudes, expectations, and training motivation.

The value of the present model is its integration of traditional training evaluation criterion with present-day interpretations of the training process and its effectiveness. In addition, the model provides a comprehensive relational perspective on trainee characteristics. By demonstrating the links between trainee characteristics, the model illustrates how they can affect one another in the determination of overall training effectiveness. However, like so many of the other models, this model has failed to invite replication research that could make it more credible. The following diagram is a depiction of Cannon-Bowers (1995) comprehensive model of training effectiveness, with all variables and causal links illustrated:

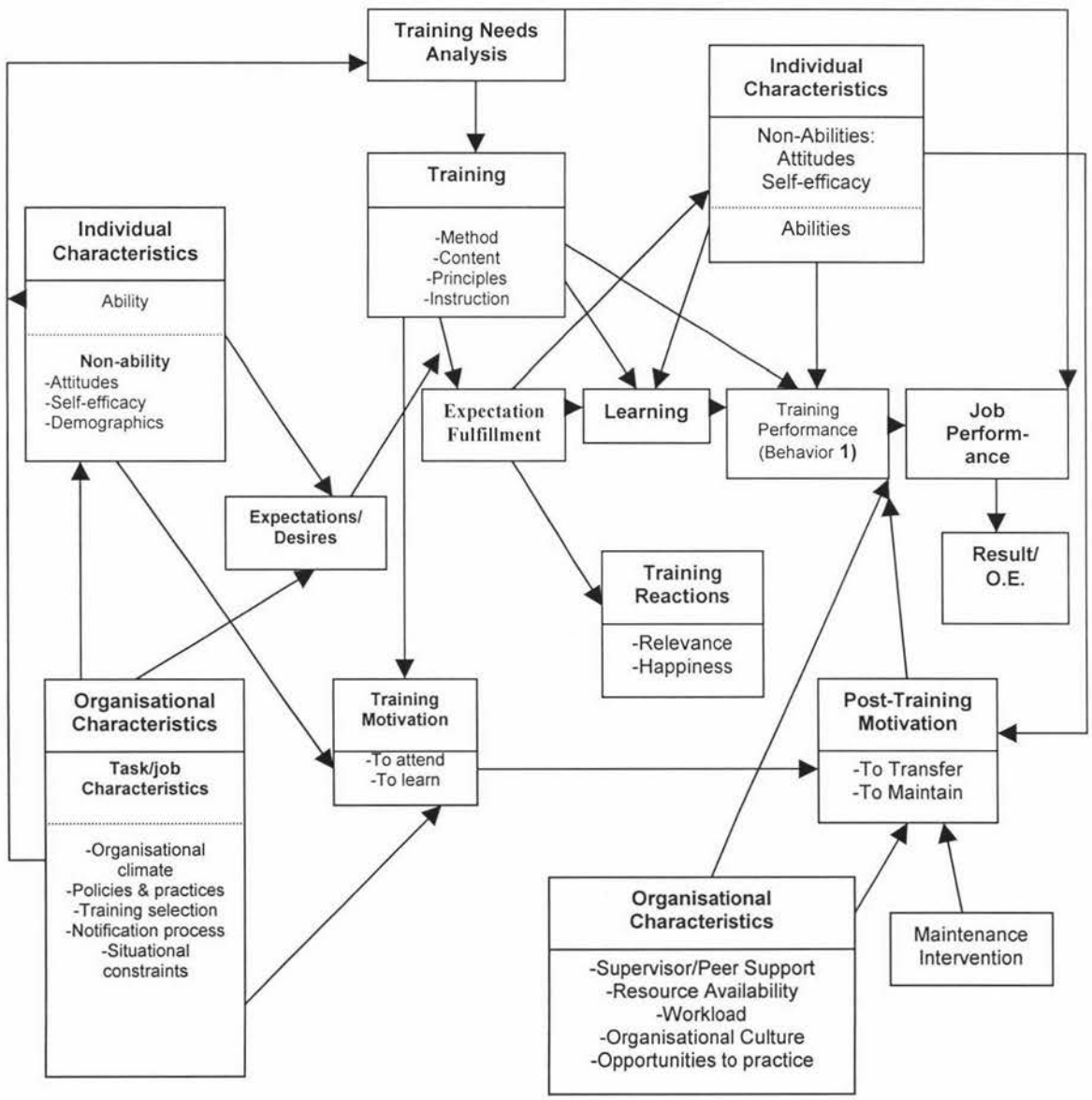

Figure 3.8: Cannon-Bower, Salas, Tannenbaum, & Mathieu's (1995) Comprehensive Model of Training Effectiveness

Holton (1996) Evaluative Research & Measurement Model

The final model under consideration is the 'Evaluative Research & Measurement Model' developed by Holton (1996). In this model, Holton (1996) re-conceptualises Kirkpatrick's (1994) four-level evaluative model. Initially, Holton (1996) abandons *reactions* as a primary outcome of training. He then substitutes *'individual performance'* for behaviour as the second training outcome. Holton improves on Kirkpatrick's (1967, 1994) four-level evaluation taxonomy by including primary and secondary influences on training outcomes. Training outcomes, which can be thought of as indicators of training transfer are composed of learning, individual performance (on-the-job), and organisational results (i.e. increased profits, reduced turnover, increased productivity). Capitalising on the work of Noe (1986), Holton (1996) identifies three factors influencing trainee behaviours: ability, motivation, and the environment. These are labeled as primary intervening variables in the model because of their influence on training transfer. Secondary influences are also included, with most affecting trainee motivation.

The model assumes three primary factors influencing learning: trainee reactions, motivation to learn, and ability. Firstly, reactions are proposed to affect learning by moderating the relationship between motivation to learn and learning. Positive reactions to learning are supposed to enhance learning, and trainees who learn more successfully are expected to have more favourable reaction to the learning experience.

Secondly, motivation to learn has a direct association with learning. This link is based on the assumption of Cohen (1990) who proposed that pre-training motivation and trainee attitudes influence learning. In Holton's (1996) model trainees' motivation to learn is influenced by: readiness to learn, job attitude, personality characteristics (i.e. self-efficacy, ability: - conceived as performance self-efficacy, and personal capacity for transfer), and motivation to transfer learning. Ability makes up the third influence on learning.

Learning is expected to lead to performance outcomes, as in Baldwin and Ford (1988), and Noe (1986), Holton (1996) proposes that transfer behaviour is subject to the influence of motivation to transfer, transfer conditions (environment), and the transfer design (ability to use new learning).

Finally, organisational results are conceptualised at the individual level. This included trainees' ability to achieve results and to motivate the organisation (and other individuals) to undertake change as a result of participating in training. Holton (1996) included 'resistance/openness to change,' 'personal outcomes (positive/negative)'. Because Holton's model was chosen as the grounding of the core of this empirical investigation, a detailed discussion of the operational definition (primary and secondary factors) will be presented together with the supporting literature in Chapter 4.

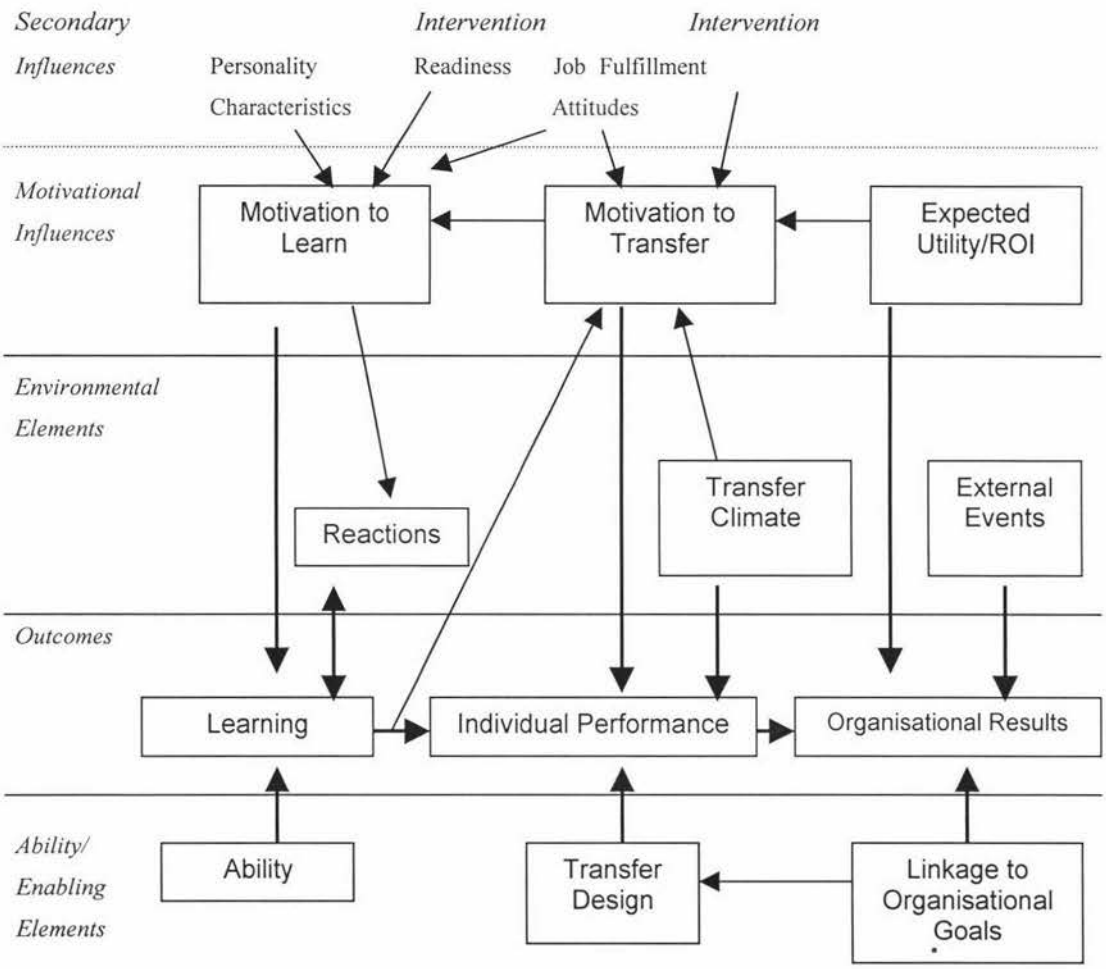

Figure 3.9: Holton's (1996) Evaluative Research & Measurement Model

In the diagram, thick arrows indicate primary relationships, light arrows secondary relationships. Primary intervening variables (ability, motivation to learn, reactions to learning, transfer design, motivation to transfer, transfer conditions, expected utility, linkages to external organisational objectives, and external events) are boxed with arrows pointing to outcomes. Secondary intervening variables (intervention readiness, job attitude, personality characteristics, and intervention fulfillment) do not

have boxes around them, but have arrows pointing to primary intervening variables through which they operate.

The appeal of Holton's (1996) model partly lies in its integration and refinement of traditional views on training effectiveness (such as corroborating Kirkpatrick's, 1967, 1994), and its adoption of empirically corroborated ideas in earlier transfer of training models discussed in the former part of this chapter. Specifically, Holton (1996) model was selected in the context of this study because it provided comprehensive coverage of factors identified by many earlier models, which have been shown to mediate training transfer. It also maps factors in a process-oriented evaluative framework that enabled easy operation of variables. Additionally, suitable psychometric instrumentation (i.e. Learning Transfer Questionnaire, LTQ: Cf. Chapter 6) was provided with the model, which were readable adaptable to any type of evaluative research study because of its generic nature. The scale (LTQ) also appealed because it operationalised climate as a perceptual construct of the individual which would facilitate data collection. Finally, Holton's (1996) provides the practitioner with a diagnostic tool for determining causal relationships that influence transfer of training.

Summary

The first half of this chapter defined and outlined the evolution of the concept of training transfer and the history of research into transfer. Traditional approaches to enhancing training transfer are based on learning principles. Contemporary approaches to enhancing training transfer can be explicated in terms of training design.

Subsequently, a number of models explaining the process of training transfer were reviewed. Common to all these models is there presentation of either direct and/or mediating factors that influence the application of learning on the job. For instance, Huczynski & Lewis (1988) present a model in which the work environment operates through organisational climate, which itself emerges from supervisory support to influence training transfer. Likewise, Gregoire et al's (1998), Richey (1992), Huczynski & Lewis (1988) construct models that address motivational factors influencing training transfer. Many of the models, including Noe (1986), Tracey et al's (1995, Cannon-Bowers et al's (1995) conceptualise training transfer in terms of training effectiveness, as defined by Kirkpatrick's (1967, 1994) four-levels taxonomy. Also common to most

models is the identification of factor combined impacting on training transfer, such as trainee characteristics, training design factors, and the work environment. For instance, Baldwin & Ford (1988), Garavalgia (1996), Cannon-Bowers et al's (1995), and Richey (1992) all outlined influences by the aforementioned factors.

Finally, Holton's (1996) 'Evaluative Research & Measurement Model' was summarised. In the next chapter, the primary and secondary influences in Holton (1996) model are reviewed in more detail.

Chapter Four

A Transfer Climate for Training

Stiefel (1974; cited in Huczynski, 1988) described the transfer of learning as a process that involves both the ability to apply what has been learned and the opportunities to use it. In other words, it is essential to simultaneously examine both the trainee and the organisational context in which the new learning will be applied. Work environments, acting through the 'transfer of training climate', influence transfer of training (Tannenbaum & Yukl, 1992; Rouiller & Goldstein, 1993; Holton et al., 1997). Research suggests that the transfer climate mediates between perceptions of the organisational environment and trainee's attitudes towards the job and behaviours on the job (Mathieu, Tannenbaum, & Salas, 1992; Holton, 1997; Rouiller & Goldstein, 1991). Once learning has occurred from training, it is the transfer climate that can either support or inhibit an individual's ability and motivation to transfer and apply learning to the work setting (Xiao, 1996; Tracey, Tannenbaum & Kavanaugh, 1995; Mathieu, Tannenbaum, & Salas, 1992; Rouiller & Goldstein, 1993). For instance, in a study of a management development program Baumgartel, Sullivan, & Dunn (1978) found that people in favourable organisational climates (e.g. freedom to set personal performance goals, risk taking encouraged, growth-oriented) are most likely to apply new knowledge. Likewise, an early study by Fleishman, Harris & Burtt (1955) demonstrated that a supportive climate is a factor in the transfer of learning to the work setting. In a review of the training literature, Goldstein (1986) suggested that a supportive organisational climate is a critical component of the transfer process. In his view, unless there is a supportive climate in the job situation, trainees' will be unlikely to use newly learnt skills. More recently, Rouiller and Goldstein (1993) found that the transfer of training climate influenced trainees' transfer behaviour and skill use on the job. Tracey et al (1995) reported that both transfer of training climate and a continuous learning culture affected post training behaviour. These findings and claims suggest that the transfer climate may be as important as the training itself for ensuring transfer of training (Rouiller & Goldstein, 1993).

Research into mediating influences such as trainee attitudes and the work environment (i.e. transfer climate) has been plagued with methodological problems. For

instance, the vast majority of studies of training outcome evaluated the training in terms of the needs, design, appropriateness, quality, and outputs. Results have often being interpreted as measures of training effectiveness in terms of transfer, ignoring the characteristics of the job setting (Rouiller & Goldstein, 1993).

Moreover, a lack of agreement amongst training researchers on theoretical and conceptual issues has resulted in fragmented findings that are difficult to reconcile. Attending to these problems, this chapter will review the concept of 'transfer climate', its genesis, as well as underlying assumptions. Previously, Chapter 3 reviewed theoretical interpretations of transfer and presented the basic model guiding this research. In the following chapter, Chapter 5, the conceptual and operational definitions for the intervening influences (on transfer of training) from Holton's (1997) Evaluative Research & Measurement Model are described.

Organisational Climate

Organisational climate has been and remains a central theme of research in Industrial and Organisational psychology. The emphasis can be explained by initial links with job satisfaction, job behaviours, and more recently, transfer of training. Organisational climate has been identified as an important intervening influence on the transfer of training (Rouiller & Goldstein, 1991; Holton et al., 1997). It is worth exploring the meaning of organisational climate through its genesis, evolution, conceptualisation, theme of research, methodology, and its epistemology. Following this, a review of the current 'sub-climate' of interest, the transfer climate is explored.

A Metaperspective on Organisational Climate

Several authors including Schneider (1975), Schneider & Reichers (1983), Moran & Volkwein (1992), and more recently Denison (1996) have posed the question, '*Where do organisational climates come from?*' In response to this, four hypotheses have been proposed. The formative process of organisational climate may provide clues to a better understanding of climate, which in turn assists in operationalisation and measurement of climate (Schneider, 1983).

Structural Approach

Proposed by Payne & Pugh (1976, cited in Schneider & Reichers, 1983), the structural approach advocates that organisational climate arises from objective aspects, attributes, and conditions of the organisations, which exist independently of employees' perceptions. Accordingly, the organisational setting and conditions determine employees' values, attitudes, and perceptions of organisational events (Schneider & Reichers, 1983; Moran & Volkwein, 1992). Organisational climate is determined by an organisations size, centrality or decentrality of decision making, number and levels of hierarchies, types of technology, and the extent to which rules and policies prescribe behaviour (Moran & Volkwein, 1992). These characteristics have been referred to as 'organisational structure' (Schneider, 1975; Denison, 1996). As a collective entity, organisational climate arises from common perceptions of members who are exposed to common organisational structure. The structural argument does not ignore the influence of individual personality in determining the meaning of organisational events, but give structural factors greater emphasis (Lawler, Hall & Oldham, 1974, cited in Moran & Volkwein, 1992).

The structural approach has been critised because it advocates common structure, which cannot account for different climates found across different work groups within the same organisation (Powell & Butterfield, 1978; Moran & Volkwein, 1992). Bhagat & McQuaid (cited in Moran & Volkwein, 1992) noted that the structural approach concealed differences that arise from subjective interpretation of structural features, regardless of structural consistency.

Perceptual Approach

As a contrasting perspective, the perceptual approach locates organisational climate and its development within the individual employee. Individuals interpret, and respond to, work conditions in a way that is psychologically meaningful to them rather than grasping objective attributes (James, Hater, Gent, Bruner, 1978; Denison, 1996). Two variants of the approach were proposed to account for how these individual perceptions aggregate to form organisational climate.

Selection-Attraction-Attrition (SAA) Model

The selection-attraction-attrition (SAA) variant (Schneider & Reichers, 1983; Schneider, 1983; 1987) postulates that organisational climate arises from membership change, together with a socialisation process. Individuals may be attracted to an organisation. The degree to which they are retained is a product of the commonality between their perceptions and those of the existing membership. Individuals are selected on the basis of commonality of shared perceptions and meaning systems with existing members. Climate is born of commonality in organisation members' personalities. Perspective individuals and existing members are engaged in a simultaneous process of attraction and selection during recruitment.

Critics of this approach turn to the low validity of the recruitment interview, where representation and information can be distorted (Porter, Lawler, & Hackman, 1975, cited in Denison, 1996; Muchinsky, 1993). Other problems include the emphasis of perception, which assumes that individual ascribe equally accurate meaning to events and conditions within their work environments (Schneider & Reichers, 1983). Alike to the structural approach, the SAA approach does not account for differences in climate between working groups (Denison, 1996). Finally, no compelling empirical support for this position has been provided.

Collective Climate Model

The second perceptual model is Joyce & Slocum's (1984) 'collective (aggregate) climates.' In this model it is suggested that people group or cluster together within an organisation on the basis of agreement regarding their perceptions of an organisation. This approach takes care of the problem of differences across work groups for the perceptual approach. The problem is that it does not offer an aggregate explanation for organisational climate by operating at the collective sub-climate level (Moran & Volkwein, 1992). Research from Joyce & Slocan (1984) found no evidence for this approach as a composite theory for collective climate.

Interactive Approach

The interactive approach occupies a mid-point between organisation and members perceptions as causal factors underlying organisational climate. This approach suggests that organisational climate comes from interactions between the individual employee

and the conditions of the organisational setting (Gavin, 1975; George & Bishop, 1971). Therefore, organisational climate is the combined result of personality characteristics and their 'negotiation' with the structural elements of the organisation. By highlighting a nexus between the two perspectives, the interactive approach offers a dynamic model, with perspectives assigning a function to both the subjectivity and objectivity interpretation. So how do aggregate organisational climates arise? The formation of organisational climate for the interactive approach leans on phenomenology and symbolic interactionism.

The phenomenological argument proposes that aggregate climate results from intersubjectivity (Joyce & Slocum, 1979; Moran & Volkwein, 1992). Intersubjectivity is the process by which individual perspectives, interpretations, values and beliefs are linked. It begins with an individual awareness of other's personalities and experiences, which to an extent is internalised into that member's sense of self. Thus shared understanding arises and sets forth an agenda for organisational climate.

The symbolic interactionist view advocates (Mead's, 1934; cited in Schneider & Reichers, 1983) that the individual and the environment mutually determine one another. Individuals, check, suspend, regroup, and transform their own perceptions of events in the light of social interaction in a setting (Schneider & Reichers, 1983). Therefore, the formation of meaning that underlies climate is determined reciprocally among individuals in response to setting and each other. However, this approach fails to specify how the social context shapes interaction (Moran & Volkwein, 1992).

Cultural Approach

The cultural approach to the genesis of organisational climate emphasises the close links between climate and culture. Culture here can be understood as an idea system (Keesing, 1974), construing meaning which is reliant on values, norms, formal knowledge, and beliefs (Parsons, 1960). Culture provides a context for interpreting social interaction. In this framework, climate occupies a portion of space that constitutes culture. With this in mind, organisational climate is assumed to be created by interacting groups of individuals who share common culture, and interact with organisational conditions and settings. In order to appreciate the link between organisational climate and culture, it is necessary to clarify their differences and similarities.

Distinguishing Climate & Culture

Many authors have listed similarities and differences between organisational cultural and climate research in an attempt to integrate the two traditions (Reichers & Schneider, 1990; Moran & Volkwein, 1992; Denison, 1996). Authors similarly note that during the early 80s' the distinction between the cultural and climate perspective were quite clear, as were the differences in their methodologies and epistemologies. At that time, the study of culture used qualitative methods, concentrating on the individual's social setting (Denison, 1996). In contrast, the study of organisational climate relied on quantitative methods, generalising across social settings. However, with the progress of inquiry the distinction has become less clear; inappropriate use of terms has arisen from a lack of recognition of the different epistemologies underlying culture and climate research (Denison, 1996).

Climate has been defined in numerous ways. In the familiar definition by Tagiuri and Litwin (1968), climate is, a relatively enduring quality of the entire environment that (a) is experienced by occupants; (b) influences their behaviour, and (c) can be described as the values of a particular set of characteristics (or attributes) of that environment. This emphasises that environment is an experience of the individual within a setting. Culture has often been defined along the lines of Schein's (1985, 1990) interpretation in that it is, 'a pattern of shared basic assumptions that a group learn as it solves its problems of external adaptation and internal integration, that has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think, and feel in relation to those problems.' Schein's (1985, 1990) definition points to the social environment as the 'creator' of collective patterns of social learning. Moreover, the definition emphasises the group as the level at which culture is formed. As demonstrated by these examples, definitions of organisational climate and organisational culture are not clearly demarcated. They overlap by relying on dimensions of the environment and the actors within, whether they are individuals or groups. They refer to experiences as critical components to the formation of the respective concepts. Organisational climate and organisational culture may operate at different levels. Climate has typically been considered more superficial than culture (Denison, 1996).

The evolution of organisational culture and climate studies explains disciplinary influences that account for conceptual and methodological differences. Culture was born of the anthropological tradition, with influences from sociology, while the climate perspective comes from social psychology (Smircich & Calais, 1987, cited in Denison, 1996). Consequently, research traditions in culture and climate differ in themes, targets, epistemology and ways of evidencing hypothesis. The vigorous debate around these dividing lines has frequently been referred to as the 'paradigm wars' (Denison, 1996).

Some commonality between approaches to culture and climate are relevant to the present project. In terms of theoretical assumptions, both the climate and the culture traditions assume that the interpretation of environmental events is a product of human consciousness (Hollway, 1991; Denison, 1996; Beyer & Trice, 1987). Both acknowledge shared meaning, although climate emphasises individual derivation of social meaning, while culture, collective 'analogues' (Moran & Volkwein, 1992). Both investigate 'the internal social psychological environment of organisations and their meaning to members and organisational adaptation (Denison, 1996).' Both have addressed the interaction between social context and individuals as reciprocal (Schein, 1985, 1990). Both take a multilayered view of the organisational context and its meaning to the individual. The methodological themes and approaches of climate and culture are beginning to merge as psychologists begin to utilise more qualitative methods such as grounded theory (Denison, 1996). For example, O'Reilly's & Chatman's (1992) teamwork study (culture) is similar to Hellreigel & Slocum's (1974) peer relations study (climate) (Denison, 1996).

Conceptualisation & Criticisms of Organisational Climate

Climate within Climate

Following Litwin and Stringer's (1968) division of climate into a number of dimensions, researchers have assessed specific types of climate. It is surmised that a single organisation possesses numerous, distinct climates, each dependent on a 'function' (Schneider & Reichers, 1983; Glick, 1885; Denison, 1996). For example, Fleishman (1953) worked on leadership climate, Renwick (1975) on climate for conflict resolution. Specify 'sub-climates' allows researchers to tie the climate concept to specific areas of interest, although it should be ensured that these sub-climates fit within the broader

concept of organisational climate. Specific climate measures are superior because they reduce the range of variation that occurs with non-specific climate measures. Specific measures allow the choice of more precise criteria, improving predictive validity (Johannesson, 1973). In line with this, the present investigation will concentrate on one sub-climate: the training transfer climate.

Perceptions versus Conditions

Schneider & Reichers (1983) suggest that employee perceptions are an excellent source of data for organisational climate. This is based on the assumption that perceptions are similar across individual employees. Organisational climate has predominantly been measured using perceptual measures (James & Jones, 1974; Drexler, 1977; Glick, 1985; James & Jones, 1990), leading James, James, and Ashe (1990) to suggest that organisational climate might be more usefully conceptualised as 'psychological climate'. Distinctions between psychological and organisational climate have been accepted as fruitful in climate research (Guion, 1973; James & Jones, 1974). If both concepts are employed, psychological climate refers to the meaning ascribed to the work context by individual perceptions, whereas organisational climate focuses on organisational attributes as mirrored by summed or average meaning indicators (Glick, 1985). The use of a psychological climate construct has been critised for overlapping with job satisfaction (Guion, 1985). The question remains, 'What is the relationship between the individuals perceptions and the apparent 'realities' of the situation?'

'*Should organisational climate be conceptualised as individual or an organisational attribute?'* An answer to this depends on the goals of the researcher, although it needs to be considered to facilitate appropriate units of analysis, and a desired match between theory and data structures (Denison, 1996).

Organisational Climate & Behaviour

Organisational climate is supposed to influence organisational members' behaviour. Traditionally, research linking the two constructs has centred on job performance and job satisfaction (Litwin & Stringer, 1966; Schneider & Rentsch, 1988; Hansen & Wernerfelt, 1989), with many authors reporting significant correlations. For instance, Pritchard & Karasick (1973) found that organisational climate was strongly related to both performance and individuals' job satisfaction. Likewise, close relationships have

been confirmed between organisational climate and job performance (Schneider, 1973).

Job satisfaction has been variously placed as a dependent, independent, and mediating variable in research on organisational climate (Schneider, 1975, 1983). Organisational climate as an operationalised construct overlapped greatly with job satisfaction. Guion and Johanneson (1973), as well as Pritchard and Karasick (1973) warned that the two concepts were conceptually similar. However, others (Newman, 1975, 1977; Schneider & Snyder, 1975) have argued that job satisfaction and climate are, and should be conceptually separate.

Conceptualisation of Transfer Climate in this Investigation

Defensible empirical studies using organisational climates presuppose a more precise definition, choice of appropriate unit of analysis, and a model of determinants. In the present investigation, the sub-climate of interest is the transfer climate, which refers to, *'the practices and procedures used in an organisation to communicate or signal to employees' what is important* (Schneider, 1975; cited in Rouiller & Goldstein, 1993, pp. 380).' The transfer climate represents one factor of the work environment which has been shown to influence transfer of training (Baldwin & Ford, 1988; Rouiller & Goldstein, 1990, 1993; Tracey et al., 1995; Holton et al., 1997, 1996). The general construct of organisational climate has been conceptualised according to the psychological climate interpretation (James & Jones, 1974, 1976, & 1979; James & Sells, 1981; & James & James, 1989; Schneider, 1990; Tracey & Tannenbaum, 1995). The present project endorses the view that organisational climate arises from individual perceptions, which activate psychological interpretations of environmental attributes and events so that they make sense to the individual.

Given that psychological climate is a product of the interaction between perceptual, cognitive, and environmental factors, a number of assumptions need to be discussed. Firstly, psychological climate reflects the psychological significance of the situation to an employee (James & Sells, 1981). An 'environment' that an individual knows is a representation stemming from constructive cognitive processes involving filtering, abstraction, generalisation, and interpretation of perceptual patterns. The cognitive processes underlying interpretations are thought to be the output of high-order schemata (HOS) and belief systems (James & James, 1976). Therefore, psychological

climate is 'the product of an interaction between information sensed from the environment and high order schemata engendered by latent personal values and beliefs (James, Hartman, Stebbins, & Jones, 1977; James, James, & Ashe, 1990). Psychological climate may reflect a continuing antinomy between the openness of a high order schema to change, and the tendency to preserve familiar beliefs about environmental events. The HOS used to interpret similar events can differ amongst individuals, dependent on their experience. Those environmental attributes that have the most influence on an individual's perceptions are related to the individuals prior experience in that environment. Finally, the causal model linking psychological climate to attitudes, behaviour, and environment is one of reciprocal causation (James & Sells, 1981).

Adopting a perceptual approach to the genesis of climate, the transfer climate is seen as the 'interpretation of the perceptual medium' (Kopelman, Brief, & Guzzo, 1990) through which the work environment influences job attitudes and behaviour (Holton, Bates, Seyler, & Carvalho, 1997). The transfer climate can be described as a "sense of imperative" (Schneider & Rentsch; cited in Holton et al., 1997) that comes from the individual's perceptions of his or her work setting. It is this 'sense' that influences the degree to which that person can utilise new learning on the job (Holton et al., 1997; Schneider & Rentsch, 1988).

In order to justify the aggregation of individual perceptions into a collective transfer climate, a number of assumptions have been made for the present investigation. The necessity to aggregate arises from the need to identify an organisational climate, and to allow analysis of patterns at the holistic level. Firstly, it is assumed that individuals approach, and are accepted to an organisation based on Schneider & Reichers (1983), and Schneider's (1987) selection-attraction-attrition (SAA) theory. According to this theory, the process by which individuals join an organisation assumes that a relative homogeneity of personality traits exists between organisational members.

Secondly, in accordance with the structural approach to the etiology of organisational climate, some 'objective' situational characteristics are posited to exist across all employee groups and departments within the organisation. As a corollary of the two assumptions it is proposed that, 'organisational climate is a product of the interaction between observable, objective elements in the organisational setting and the

perceptual process of the organisational member' (Schneider, 1983a, 1983b; cited in Tracey & Tannenbaum, 1995).

Thirdly, shared meaning develops from interaction between organisational members through a process of socialisation (Schneider & Reichers, 1983). Climate corresponds to the shared pattern of meaning employees attribute to characteristics of an organisational context (Tracey & Tannenbaum, 1995). Fourthly, it is assumed that the transfer climate construct possesses an internal configuration. It is made up of a finite number of dimensions. Differences along these sub-constructs (such as peer support) show a variance across particular organisation (Holton et al., 1997). Finally, the transfer climate mirrors what is described as 'actual work climate' and the 'perceived work climate', with the latter shown to influence training transfer (Tziner et al., 1991; Rouiller & Goldstein, 1993). In this study, 'transfer climate', constitutes the basis of the investigated phenomenon. It is recalled that in case the trainee perceives an unfavourable work climate (unsupportive), training transfer will be inhibited; in a climate perceived as supportive, transfer is enhanced (Clark, Dobbins, & Ladd, 1993; Tziner et al., 1991; Baldwin & Ford, 1988).

The operational framework for this study was Holton's (1996) 'Evaluative Research & Measurement Model' as discussed in Chapter 3. In this model, the transfer climate is conceptualised as individuals' aggregate perceptions of a number of primary and secondary intervening factors. The perception of these intervening factors have been posited to influence learning and performance outcomes from training (Holton, 1996). The intervening conditions (factors) are considered in detail in Chapter 5.

Chapter Five

Intervening Conditions

Influences on Transfer of Training

A careful review of the transfer of training literature revealed a number of important situational and trainee factors that attenuate or enhance transfer of training (Baldwin & Ford, 1988; Noe 1986; Hastings, Sheckley, & Nichols, 1995; Hicks & Klimoski 1987; Latham, 1988; Gist et al's 1990; Gist et al., 1991; Latham & Crandall, 1991; Tziner et al., 1991; Ford et al., 1992; Tannenbaum & Yukl, 1992; Mathieu et al., 1992; Mathieu & Tannenbaum, 1993; Curry et al., 1994; Tracey et al., 1995; Wexley & Baldwin 1996; Axtell et al., 1996; Rouiller & Goldstein, 1991; Holton et al., 1997). Dimensions treated as intervening conditions influence training transfer via (a) the extent to which trainees learn training material and (b) the maintenance and level of learning retention and use on the job (Goldstein, 1993; Baldwin & Ford, 1988; Holton et al., 1997).

Before assessing empirical work on these intervening conditions, it may be useful to assign factors to broad sets. Baldwin & Ford (1988), Noe (1986), and Mathieu et al's (1992) categorised the intervening conditions into three broad groups: trainee characteristics, training programme design, and the trainees' work environment. Within these categories, authors such as Axtell et al's (1996) have reviewed factors that are predictive of training transfer including, self-efficacy (Ford et al., 1992; Gist et al., 1990; Tannenbaum, Mathieu, Salas, & Cannon-Bowers, 1991), motivation (Mathieu et al., 1992; Noe, 1986; Tannenbaum et al., 1991), the relevance of training to the trainee's job (Baldwin & Ford, 1988; Goldstein, 1985, 1986), principles of learning (Decker, 1982), job involvement (Mathieu et al, 1992; Noe & Schmitt, 1986), and ability (Ryman & Biersner, 1975), supervisor support and reinforcement (Ford et al., 1992; Huzynski & Lewis, 1980; Marx, 1982, McSherry & Taylor, 1994), autonomy and control (Huczynski & Lewis 1980), transfer of training climate (Tracey et al., 1995; Holton et al., 1997). McSherry (1992), and Baldwin & Ford (1988) identified supervisory support as an important determinant of transfer in the work environment. James & James (1989), as well as Facteau et al's (1995) focused on social support, while training relevance was proposed to be important to transfer by Baldwin and Ford (1988), and Goldstein (1986).

In this chapter, intervening conditions in the categories of training trainee attributes, and the organisational environment are explored. To link findings in the literature to instruments and the structure of Holton's (1997) 'Evaluative Research and Measurement Model', this chapter follows the sequence in the guide of Holton's (1997) Learning Transfer Questionnaire (LTQ) (Cf. Appendix VI). Section 1 reviews the literature pertaining to training characteristics, while section 2 discusses the influences on transfer within the work environment (transfer climate).

Section One

Trainee Characteristics

Until the late 80's little attention was paid to the effects of employee expectations, attitudes, abilities, and perceptions on training and post-training (back on the job) performance (Hicks & Klimoski, 1987; Quinones & Ehrenstein, 1997). The move towards a 'systems' or 'global perspective', incorporating aspects beyond the immediate training programme, guided research towards trainee and situational variables (Campbell, 1988; Tannenbaum & Yukl, 1992). For example, Campbell (1988) noted that individual variables such as trainees' goals; their levels of self-efficacy before, during, and after training; and the self-regulatory behaviours of trainees, could all impact on training effectiveness. More recently, research efforts have demonstrated that various trainee characteristics can affect learning in training and training transfer. For instance, readiness and motivation are important for determining whether trainees' will learn (Goldstein, 1991). Likewise, trainee attitudes, interests, values, and expectations may attenuate or enhance training effectiveness. Determining the specific individual characteristics that influence the effectiveness of training is important if we desire to increase the likelihood of post-training behaviour change and performance improvement (Noe, 1986).

Learner Readiness

Typically, learner readiness has been investigated as a function of trainability, itself divided into three factors: trainee ability, motivation, and environmental perceptions. However, in the present context these three factors are considered separately as in Holton's (1996) 'Evaluative Research and Measurement Model'. Before describing the present conceptual form of learner readiness, it is reviewed in terms of trainability.

Trainability: A Sub-Factor of Learner Readiness

Trainability refers to an individual's ability to acquire new skills, knowledge, or behaviour from training necessary to perform a job at a given level within a reasonable time (Robertson & Downs, 1979). Trainability has been described as a multiplicative function resulting from individual ability and motivation to learn (Maier, 1973, Wexley & Latham, 1981): -

Trainability = f(ability * motivation)

More recently trainability was extended to include perceptions of the work environment, in a three factor model (Noe, 1986).

Trainability = f(ability * motivation * environmental perceptions)

The new component reflects issues of organisational climate that supports or inhibits training effectiveness. Trainability is implicated as an important trainee characteristic affecting training performance (Porter & Lawler, 1968). Most research investigating trainability has focused on the ability component 'can do', with the exception of Baldwin, Magjuka, & Loher (1991a, 1991b), who studied motivational factors in trainee ability 'will do'. In this study, learner readiness is related to degree of choice to participate in training.

Choice to Participate: - Learner Readiness

Degree of choice, or how much opportunity employees are granted to select training options on the basis of their own needs and desires, is an important variable for several reasons. First, some researchers have found that it influences trainees' success in grasping training material as well as moderating the level of trainee attrition from training programs (Ryman & Biersner, 1975; 1995). Secondly, choice has been linked to training commitment, with higher commitment arises from a greater latitude of choice (Salancik, 1977). It is believed that commitment affects the amount of effort that a trainee expends on learn training material in terms of attempts, practice, and implemented action in future settings (Kiesler, 1971; Salancik, 1977). Kiesler and

Salancik demonstrated that trainee commitment affects decisions to attend, perceived appropriateness of, and satisfaction with, the training, and trainee motivation to learn. Overall, degree of choice affected not only trainees' initial perceptions and their receptivity to training, but also the amount of learning. Thirdly, trainees' who have input into training, and a degree of choice of whether to participate (voluntary or mandatory), are more likely to view training content as relevant to their jobs (Clark, 1990; Clark et al., 1993; Tannenbaum & Yukl, 1992).

Choice has been explained in terms of the 'fair process effect' (Folger & Greenberg, 1985, cited in Baldwin, Magjuka, Loher, 1991c). People are more likely to accept decisions and their outcomes on the basis that they have participated in making them. A second explanation of choice was offered by Folger & Greenberg (1985) via the 'frustration effect.' The frustration effect involves the possibility that granting of choice heightens expectations, which can be undercut if choice is not given, with the result that trainee's become dissatisfied and frustrated.

Degree of choice has been conceived and operationalised in a number of ways. For instance, Baldwin et al's (1991) conceived choice in terms of selection of training content, rather than a choice to attend, with the former being empirically associated with pre-training motivation to learn under conditions where choice is realised by trainees'. Alternatively, Quinones (1995) conceived degree of choice as a form of feedback. Quinones assigned poor performers to remedial training and superior performers to advanced training. Training assignment was determined by past performance, which sets a precedent for training as a reward function. In other words, assignment to training can act as a source of feedback (negative or positive) that can affect employees' attitude and motivation towards training. Quinones (1995) found that both perceptions of past performance and expected assignment (remedial or advanced) moderated the relationship between training assignment and fairness perceptions. Quinones (1995) suggests that training assignment is not 'value free' in so much as employee perceptions of the reasons for the assignment and training type affect their motivation to learn. Finally, Rynes & Rosen (1995) suggested that mandatory assignment to training signals a high level of upper management (organisational) commitment/support for training.

Alternative perspectives on 'degree of choice' entail varying research designs. For instance, Ryman and Biersner (1975), and Baldwin, Magjuka and Loher (1991) demonstrated that having choice to participate in training was predictive of greater training success and fewer training withdrawals. Baldwin, Magjuka and Loher (1991) found higher pre-training motivation to learn resulted when trainees received their top choice of training course. In one of the few studies of trainee expectations and perceptions before training Hicks & Klimoski (1987) found that a wider choice led to more favourable post-training reactions. Specifically, choice was associated with greater training satisfaction, higher pre-training motivation to learn, more positive training reactions, and higher achievement scores compared to a low degree of choice group. Similar results have been published by Mathieu et al's (1992), and Baldwin et al (1991), and Baldwin & Magjuka (1991). For instance, Mathieu et al (1992) found that trainees reacted more positively to courses if they were given a choice of whether to participate as opposed to being assigned. While, Baldwin et al's (1991) revealed that trainees who did not receive their requested preference report lower motivation to train and learn than those not offered a choice and given it.

In the present investigation, learner readiness refers to the extent to which individuals are prepared to participate in training (Holton et al., 1997, 1998). Learner readiness is also linked to the degree to which individuals were able to participate in training design; were aware of what training involved (training content expectations); and understood how training related to their job development and work performance (Holton et al., 1997, 1998).

Performance Self-efficacy

Derived from social-cognitive research, self-efficacy refers to beliefs in one's capacity to mobilise motivation and cognitive resources, and execute required behaviour to cope with threats and demands in a situation (Bandura, 1977b; Wood & Bandura, 1989). In other words, self-efficacy can be thought of as, an individual's self-perception/belief in their ability to perform a given task successfully (Bandura, 1977a, 1977b, 1982, 1986). According to Bandura (1986), self-efficacy is a dynamic characteristic that continuously changes as individuals acquire new knowledge and experiences. For instance, self-efficacy changes with performance outcome, such that successful performance increases

self-efficacy. Support for this relationship has come from Karl, O'Leary-Kelly, and Martocchio (1993), who found that feedback influences self-efficacy. Those who receive more positive performance feedback developed higher self-efficacy, which subsequently led to better task performance.

In the domain of training, evidence suggests that self-efficacy is an important trainee characteristic influencing training effectiveness (Frayne & Latham, 1987; Gist, 1989a, 1989b; Gist, Stevens, & Bavetta, 1991; Mathieu, Martineau, & Tannenbaum, 1993). In training, self-efficacy is investigated as an individual's self-judgements of their capability to perform tasks successfully (Bandura, 1977a; Mathieu, Martineau, & Tannenbaum, 1993; Mathieu et al., 1993; Cannon-Bowers, 1995). In behavioural terms, those with high self-efficacy will exert considerable effort in order to cope with situations that may demand new behaviour patterns or higher performance levels. Bandura (1989) suggests that self-efficacy involves generating resources and skills for successful performance. Evidence suggests that those high on self-efficacy outperform those low on self-efficacy; self-efficacy is more predictive of future performance than past performance (Noe, 1986); and self-efficacy accounts for a large portion of variance in performance after ability (Bandura, 1986).

Bandura (1977b) proposed that self-efficacy influences learning in training through expectancy theory. Trainees' beliefs that they can learn material presented in a training course, and that desirable outcomes (i.e. promotion, salary increases, or prestige) will result from acquisition, influences their motivation to learn (Bandura, 1977a, 1977b). Support for expectancy theory has come from Quinones (1995), Gist (1986), and Gist, Schwoerer, and Rosen (1989), who demonstrated a causal effect from pre-training self-efficacy on motivation to learn, which subsequently resulted in increased performance in training. Post-training, Noe (1986) confirmed that an individual's self-efficacy has an impact on motivation to transfer, while Gist, 1989 (see also Gist, Schwoerer, & Rosen, 1989; Gist, Stevens, & Bavetta, 1991) and Martocchio & Webster (1992) found a relationship between self-efficacy and learning acquisition.

Recently, further relationships between self-efficacy and different indicators of training success were mapped. For instance, self-efficacy has been shown to be important to training design because of its relationship to training outcomes

(absenteeism) (Latham & Frayne, 1989). Specifically, self-efficacy has been identified as a mediator of behavioural change and behavioural maintenance (Bandura, 1982; Noe, 1986; Latham, 1988; Latham & Frayne, 1989; Gist, Stevens, & Bavetta, 1991; Tannenbaum & Yukl, 1992). Other authors, including Gist, Stevens, and Bavetta (1991), and Gist, Schwoerer, and Rosen (1989) have found that high pre-training self-efficacy predicted both skill acquisition and short-term job skill maintenance. Marx (1982) suggested that self-efficacy is important in skill maintenance because individuals who leave training with high self-efficacy towards trained skills will be more resilient to obstacles in the work environment when attempting to apply those skills.

In terms of the time effects of self-efficacy, Gist (1991) found that initial self-efficacy for interpersonal skills training was significantly related to initial performance levels. However, Ford et al's (1992), Tannenbaum et al's (1991), and Axtell et al's (1996) reported a non-correlation between long-term training transfer and self-efficacy, suggesting that self-efficacy may be more important around the time of training. Bouffard and Bouchard (1989) documented that perceived self-efficacy related to task persistence in a cognitive task, and number of problems solved (i.e. performance). Likewise, Gist (1989) found that self-efficacy was strongly correlated with post-training problem-solving performance.

Self-efficacy has been shown to predict performance in computer training (Gist, Schwoerer, & Rosen, 1989), interpersonal skills training (Gist, Stevens, & Bavetta, 1991), and behavioural model training (Decker & Nathan, 1985). Finally, self-efficacy has been shown to influence training transfer to the job setting (Ford, Quinones, Sego, & Sorra, 1992). Likewise, Cannon-Bowers (1995) found that self-efficacy was an important predictor of learning in training and training effectiveness.

In summary, self-efficacy has been demonstrated as an important precondition and mediator influencing the level of learning in training (training performance); post-training learning, retention and maintenance; training motivation; post-training job performance, and training transfer. The causal relationship between performance and self-efficacy requires further exploration.

In the present investigation, self-efficacy was conceptualised as 'performance

self-efficacy', which refers to an individual's beliefs that they are able to change their performance at will (Holton et al., 1998). Performance self-efficacy embodies the individual's feelings of confidence and self-assurance regarding their ability to apply new learning in their jobs by overcoming barriers to learning (Holton et al., 1998).

Motivational Factors

At its most basic level motivation is a force that energises, directs, and maintains behaviour (Noe & Schmitt, 1986). In training, motivation influences training enthusiasm (energise), guides trainees to learn and master training content (directs), and influences trainees' desire to practice and master new skills (maintenance). In other words, motivation affects the trainee's attitude to training by acting at the pre-training phase, during training, and after training, back on the job (Baldwin & Ford, 1988; Gregoire et al., 1998). A loss of motivation at any stage has been shown to undermine both learning in training and transfer of training (Gregoire et al., 1998). Two distinct types of motivation have been identified as influential upon the training process: motivation to learn and motivation to transfer.

Motivation to learn, or pre-training motivation is linked to learning, performance, and completion of training (Hicks, 1984; Hicks & Klimoski, 1987; Baldwin et al., 1991; Clark, 1990; Mathieu et al, 1990, 1992; Tannenbaum et al., 1991). Specifically, trainees with higher pre-training motivation learn more, perform better, and are more likely to complete training, than those less motivated (Baldwin, Magjuka, & Loher, 1991b; Mathieu, Tannenbaum, & Salas, 1990). Partly determined by trainee attitudes, motivation to learn refers to a trainee's desire to acquire and master the content of a training program (Noe, 1986). Noe (1986) suggests that trainees will be more motivated to perform in training if they perceive that (1) high effort leads to high performance in training, (2) high performance in training leads to high job performance, (3) high job performance is instrumental in obtaining desired outcomes (i.e. reward function), and avoiding undesirable outcomes. Both Noe (1986) and Mathieu (1992) proposed that successful completion of training with a known desirable reward (such as career advancement or salary increase) could influence motivation to learn. In terms of the concept and mechanisms underlying motivation to learn, attention, relevance, confidence, and satisfaction have all been examined (Cannon-Bowers et al., 1995).

Typically measured as enthusiasm and persistence to learn (Hicks, 1984), motivation to learn has been found to affect learning in training (Hicks, 1984; Baldwin, Magjuka, & Loher, 1991b; Mathieu, Tannenbaum, & Salas, 1992; Quinones, 1995; Tannenbaum, Mathieu, Salas, & Cannon-Bowers, 1991; Quinones, 1995), training attrition (Cohen, 1977), and behavioural outcomes of training (Quinones, 1995). Quinones (1995) demonstrated that motivation to learn related positively to trainee reactions.

A second type of motivation described by Noe (1986) is the motivation to transfer newly learned skills to the job. It involves both the trainee's desires to acquire and master new skills, and apply the skills to their jobs. Noe (1986) hypothesised and found motivation to be driven by four factors, including; (1) the level of trainee self-efficacy to use their new skills; (2) their perception that the new skills are relevant to their job (Tziner et al., 1991); (3) their awareness of work situations support of new skill use; and (4) the perceived job improvement as a result of use of new skills. Subsequent empirical research by Noe and Schmitt (1986) was inconclusive, although it could have been the result of methodological problems (Tziner et al., 1991).

Theoretically, valence-instrumental-expectancy approach has been suggested as a useful model for explaining motivation in training transfer research (Lawler, 1973; Baldwin & Ford, 1988, Tannenbaum, Mathieu, Salas, & Cannon-Bower, 1991; Mathieu, 1992). In the context of training, the valence-instrumental-expectancy theory suggests that trainees' consider the utility of the training as a means to attaining desirable outcomes. With this in mind, trainees decide whether to attend training, expend effort in training, and persist in attempting to apply training back on the job. For instance, trainees believe that doing well in training will led to better job performance as a valued organisational and personal outcome (reward function) (Huczynski & Lewis, 1988). Testing the model, Mathieu (1992) found that perceived situational constraints had a marginal negative affect on training motivation, agreeing with the earlier work of Peters, and O'Connor (1980a), Peters, O'Connor, and Rudolf (1980b), and Peters, O'Connor, Eulberg (1985). Other research focused on the influence of motivation on training effectiveness. For instance, Huczynski & Lewis (1988) reported that motivation to learn and transfer learning were enhanced when trainees were given a choice of whether or

not they wanted to attend training, as well as been involved in training design (such as discussing aims of course with supervisor). Axtell et al's (1996) found that after one year original motivation to use what they had learned was amongst the most predictive factors of training transfer. Despite this effort, there has been little work since which links motivation and training effectiveness (Cannon-Bowers et al., 1995).

In summary, both pre-training motivation (motivation to learn), and post-training motivation (motivation to transfer) have been identified as central factors affecting training transfer (Noe, 1986; Noe & Schmitt, 1986). Thus training motivation should be considered both an important input and outcome of training (Latham, 1989).

In the present study, motivation was investigated as the 'motivation to transfer learning', which assumed the role of a primary influence on transfer behaviour in Holton's (1996) model. This is defined as the direction, intensity, and persistence of effort toward using skills and knowledge from training in the work environment (Holton et al., 1997, 1998). In this investigation, motivation to transfer can be described as the extent to which trainees' are motivated to use learning in their work. It includes the degree to which individuals feel able to perform, plan to use, and believe that new skills and knowledge will assist them to more effectively perform their jobs (Holton et al., 1997, 1998). A number of 'secondary influences' also affect motivation to learn and transfer behaviour. Baldwin and Ford (1988), as well as Broad and Newstrom (1992), prompted Holton (1996) to posit four categories of secondary influences: intervention fulfillment, learner outcomes, job attitudes, and expected utility. In this model intervention fulfillment and learner outcomes are conceptualised as performance expectations and outcome expectations. These will subsequently be discussed with a review of the literature on expectations and transfer of training.

Expectations

Trainees enter training with different expectations about training, which carry over to training effectiveness (Tannenbaum et al., 1991). Tannenbaum et al (1991, pp. 760), conceptualises expectations as training fulfillment, which refers to, *'the extent to which training meets or fulfills trainee's expectations and desires, which if not met led to negative attitudes, poor training reactions, and attrition from training.'* In a test of their hypothesis, they found that expectations played a role in trainee reactions (commitment,

post-training academic self-efficacy, and training motivation), with consequences for training effectiveness.

Training expectations have typically been conceptualised and explained according to expectancy model (Gregoire et al., 1998). The model can explain training transfer because it involves looking at both pre- and post-training expectations (Gregoire et al., 1998). According to expectancy theory, the more informed trainees are about training (i.e. goals, expected outcomes, format, relevance), the more motivated they will be during and after training. These ideas are empirically corroborated by Baldwin and Ford (1988), Noe (1986), Noe and Schmitt (1986), and Clark, Dobbins, and Ladd (1993).

More recently, two types of training expectations have been identified and investigated. First, trainees hold *performance expectations* that the effort they apply to learning in training will result in favourable changes in their job performance (Holton et al., 1998). Holton et al's (1998) propose that performance expectation affects the extent to which individuals believe that applying skills and knowledge learned in training will improve their job performance. This includes trainees' perceptions that invested effort in using new skills on the job has made a difference to past job performance or will influence future performance, which steer transfer effort. Developing a generic transfer of training scale, Holton et al's (1997, 1998) found psychometric justification for including performance self-efficacy in a learning transfer model.

Second, trainees can hold outcome expectations, which have been conceptualised as the belief that changes in job performance will result in outcomes valued by the individual (Holton et al., 1998). More specifically, an outcome expectation refers to individual's beliefs that application of skills and knowledge learned in training will lead to self-valued outcomes. This includes the extent to which organisations demonstrate the link between development, performance, and recognition, by communicating performance expectations to individuals via reward. Salary increase, favourable performance appraisal and promotion can be offered for improved performance associated with training (Holton et al., 1998). Outcome expectations are associated with creation of a work environment that makes individuals 'feel good' about performing well (Holton et al., 1997, 1998). Outcome expectations were included in

Holton et al's (1998) learning transfer questionnaire because of their psychometric validity to training transfer. In a similar manner, Vroom (1964) related expectations to effort-performance and performance-outcome perceptions. Vroom (1964) suggests that trainees possess differential outcome preferences (i.e. recognition, salary increase) because of participating in training. Specifically, trainees have expectations about whether the investment in training will result in favourable outcomes. Trainees also differ in the extent to which they believe that good performance in training will lead to desirable outcomes. Empirical evidence for the effects of expectations on post-training performance outcomes and job behaviour change has come from various authors, including Froman (1977; cited in Noe, 1986).

The present investigation adopts the perspective of Holton et al's (1997, 1998) (Cf. instrument description, Chapter 6). Expectations are operationalised as 'performance-expectations' (transfer effort) and 'outcome expectations' (post-training performance).

Section Two

Work Environment Characteristics

Until the last decade, the neglected influence on training transfer has been the work environment to which a trainee returns after training (Baldwin & Ford, 1988; Quinones & Ehrenstein, 1997). Even now, rigorous investigations of factors in the work environment are sparse, with most studies centering on organisational climate (Goldstein, 1993; Quinones & Ehrenstein, 1997). Typically, contemporary investigations have looked at the work environment as a composite of factors that interact to influence the application of new learning on the job. Most studies tend to emphasize the inhibitory effects of the work environment (Goldstein, 1993; Huczynski & Lewis, 1980, 1988). Referred to as 'situational constraints' (or environmental constraints), these factors have been defined as the characteristics of the work environment that interfere with (or restrict) employees' performance and training transfer (Peters & O'Connor, 1980a; O'Connor & Eulberg, 1985; Phillips & Freedman, 1984; cited in Mathieu et al., 1992; Campbell, 1970, 1988, 1989; Noe, 1986). Situational factors (transfer climate) are crucial because they influence training transfer even when trainees possess appropriate attributes for training and receive excellent

training (Tracey, 1992; Tracey, et al., 1995).

Peters and O'Connor (1980a) proposed a comprehensive model of situational constraints that mediate motivation and ability to transfer training to the work setting. They conceptualise situational constraints as factors beyond the control of the trainee or employee that act to inhibit or facilitate work performance. In a four-part model, Peters and O'Connor (1980a) suggest that inhibitory situational constraints exert greatest effect on task-relevant ability and motivation to utilise new skills at work. Individuals with high performance expectations are less affected. Secondly, inhibitory situational constraints that block achievement of valued goals are predicted to frustrate individuals and lower motivation and performance. Thirdly, the removal of constraints will lead to immediate, continued and gradual performance improvement due to increased expectancy beliefs and motivation. Fourthly, negative effective response to inhibitory situational constraints will lower performance. In addition, Peters and O'Connor (1980a) conceptualise situational constraints as consisting of both task components and social components (Peters, O'Connor, & Eulberg, 1985). In order to operationalise their model, Peters and O'Connor (1980), and Peters, O'Connor, and Rudolf (1980) identified eight categories of task constraints believed to restrict the use of new skills. Subsequent work has identified a further three features (peers, trainer, & supervisor support), categorised as social constraints (Tziner, 1991; Rotter's, 1966; Noe, 1986; Mathieu et al., 1992).

These situational task constraints, which include a lack of job related information, tools and equipment, materials and supplies, assistance and service, time, physical aspects of the work environment, job related authority, and financial support can determine the extent to which knowledge and skills acquired in training will either be promoted or constrained on the job (Peters, O'Connor & Eulberg, 1985, 1991).

In a field test of the model, and using the eight categories of situational constraints, O'Connor, Peters, Pooyan, Weekly, Frank, & Erenkrantz (1984) found the constraints to be predictive of performance, affective response, and turnover. Overall, they found support for the hypothesised model of situational constraints with associations between performance, satisfaction, frustration, dissatisfaction, and turnover to all situational constraints. Since the initial model, follow-up work by O'Connor, Peters, Pooyan, Weekley, Frank & Erenkrantz, (1984), Peters, Fisher, & O'Connor

(1982), Peters, O'Connor, & Rudolf (1980), Tannenbaum & Yukl (1992), and Tracey et al's (1995) has confirmed that trainees' perceptions of situational constraints (i.e. task and social constraint) can indirectly frustrate learning and changes in work behaviour. This has been suggested to reduce motivation to learn and apply new skills acquired in training because incumbents are unable to convert work motivation into performance (Peters et al., 1985), which results in reduced training effectiveness (Mathieu et al., 1992; Goldstein, 1985, 1991, 1993; Tziner, 1991; Tracey & Tannenbaum, 1995). Therefore, situational constraints can both affect transfer of training and inhibit future learning. In support of this, Phillips and Freedman (1984) found empirical evidence for a negative relationship between individual perceptions of situational constraints and incumbents' work motivation. More recently, Goldstein (1991) demonstrated that work environment perceptions influence trainee' motivation to learn and transfer training. Finally, sensitivity to work environment constraints has been noted to differ amongst individuals (Peters, O'Connors & Eulberg, 1985; Freedman & Phillips, 1984; Noe, 1986).

Other environmental variables that influence training effectiveness are social in nature, in that they stem from interactions with trainers, peers, and supervisors. These social variables may have a deleterious effect on 'trainee characteristics', crucial to training success, including self-efficacy, motivation (Mathieu et al., 1992), personal autonomy, and locus of control (Tziner, 1991; Rotters, 1966; Noe, 1986). Consequently, authors such as Baldwin and Ford (1988), and Holton et al's (1997) have argued that supervisor and peer support, and organisational support, are key variables capable of influencing the transfer process. In a study of social situational constraints, Facteau et al's (1995) stressed training attitudes (incentive, reputation), trainee attitudes (motivation, commitment, career planning), and environmental support (climate, peer, supervisory, organisational support). They found that pre-training motivation was linked to training attitudes; in addition to social support, pre-training motivation influenced training transfer (Facteau et al., 1995). Task constraints and organisational commitment were not predictive of training transfer. This study is an example of a trend toward multidimensional modeling of situational constraints. Huczynski and Lewis (1988) found that factors such as work load, job autonomy, communication, and openness to change operating through the immediate supervisor can either enhance or inhibit transfer of training.

Summary

Situational constraints, including multidimensional task and social constraints, are crucial for determining training transfer. However, since Baldwin and Ford's (1988) comments on the lack of research on work environment in training, little has changed. For instance, Tracey et al's (1995) noted that there is relatively little work that incorporates situational constraints into an investigation of training transfer. In fact, the lack of literature makes it apparent that additional research is needed with diverse types of training interventions to specify the influence on the work environment of different types of skills and knowledge learned, and their utility on the job.

The present study took up the challenge of investigating the phenomenon of training transfer by adopting Holton et al's (1998) 'Evaluative Research & Measurement Model', which takes a comprehensive, multifaceted perspective on situational constraints to training effectiveness. The approach of Holton et al (1998) suited the present investigation as it benefited from suggestions by Schneider (1972, 1978), Jones and James (1979), and more recently Mathieu et al's (1993). Specifically, Mathieu et al's (1993) proposed that at the individual level, situational constraints refer to individual differences in work pressures, support, sanction and opportunities, while at the aggregate level it refers to organisational climate.

The next section will outline the factors included in Holton's (1997, 1998) 'Work Environment Scale'. This includes a review of social support, which embodies feedback/performance coaching, supervisory and peer support/sanction, and resistance/openness to change, all proposed to alter organisational climate (Holton, 1996, Holton et al., 1997, 1998). The emphasis of the Learning Transfer Questionnaire (LTQ) is on social constraints rather than task constraints, with the latter well documented in earlier literature. Finally, work environment factors (i.e. transfer conditions) assume the role of a primary influence on performance and a secondary influence on motivation to transfer in Holton's (1996) 'Evaluative Research and Measurement Model.' According to this, individuals who experience supportive work conditions are more likely to transfer learning to the job. Additionally, those working in positive work conditions are more likely to possess higher motivation to transfer.

Social Support

The social environment has been identified as a key aspect of the work environment influencing training transfer (Tziner et al., 1991; Tannenbaum & Yukl, 1992; Guthrie & Schwoerer, 1994; Rouiller & Goldstein, 1993; Holton et al., 1997). The social environment is composed of peer and supervisory support/sanction given to trainees' during attempts to apply new skills on the job (Tannenbaum & Yukl, 1992; Tziner et al., 1991). As one component of environmental factors, perceived social support for training and training transfer has been consistently associated with training effectiveness (Goldstein, 1993). According to Noe (1986) a supportive social setting exists when employees perceive that significant others (peers, supervisors, organisational policy through supervisors) provide opportunities and reinforcement to practice their newly learnt skills on the job.

Social support refers to trainee's belief that he/she will find on the job opportunities for using new skills, and that the use of these skills will be encouraged by peers, supervisors, and the organisation (Tziner et al., 1992). The different sources of social support (or social constraints), including supervisory, organisational, and peer support/sanction have been shown to have differential effect (at different times) on pre-training motivation and training effectiveness (Facteau et al., 1995). Among others, these factors aggregate to form organisational climate (Schneider, 1972; & Jones & James, 1979). Moreover, trainees' beliefs about opportunities to practice and use new skills and knowledge acquired in the training are of equal importance for assessing the organisational climate and identifying social situation constraints (Bahn, 1973; Byham, Adams, & Kiggins, 1976; Eddy, Glad, & Wilkins, 1967; Ehrenberg, 1983). It is not surprising that a number of researchers have suggested that the benefits of training will not be realised without a supportive atmosphere to facilitate the application of new skills (Baldwin & Ford, 1988; Goldstein, 1991; Rouiller & Goldstein, 1993; Holton, 1996). In what follows, each aspect of the work environment is reviewed separately. The manner in which these aspects are handled in the present research is outlined.

Organisational Support- Feedback/Performance Coaching

Organisational support (or upper management, top management support) is demonstrated through formal practices and procedures that can influence the transfer

process (Tesluk, Farr, Mathieu, & Vance, 1995). In a supportive climate, employees are more likely to transfer skills from the training environment to the work environment; that is, trainees are more likely to use acquired skills on the job (Bahn, 1973; Marx, 1982; Salinger, 1973).

Research has probed into the relationships between organisational support, training, and performance. Russell, Terborg, and Powers (1985) reported that organisational support and training were correlated with job performance. In a specific type of training, Baumgartel & Jeanpierre (1972) found that human relations training was more likely to be implemented at work when trainees are encouraged to experiment with new methods. In an investigation of the success (training transfer) of diversity training, Rynes and Rosen (1995) demonstrated that organisational support was an important moderator in training success. Taylor (1992) found organisational support to be important to training transfer, although a slightly less important predictor than supervisory support.

In the present study, organisational support (construed as feedback/performance coaching) is defined as the formal and informal indicators or cues from the organisation about an individual's work performance (Tesluk, Farr, Mathieu, & Vance, 1995; Holton et al., 1997, 1998). Assessing facets of organisational support included the degree to which employees' received constructive input, assistance, and feedback from others in the work environment (i.e. peers, employees, colleagues, & managers' etc) when applying new skills or attempting to improve work performance.

Supervisory Support/Sanction

Supervisors are positioned as the most important social factor in the work environment for the transfer of training (House, 1968; Goldstein, 1986; Huczynski & Lewis, 1980, 1988; Baldwin & Ford, 1988; Tannenbaum & Yukl, 1992; Gregoire, 1994, Rouiller & Goldstein, 1993; Holton, 1997). As mentioned by Huczynski and Lewis (1980), trainees who perceive that the training is important to the supervisor will be more motivated to attend, learn, and transfer trained skills to the job.

Byham, Adams, and Kiggins (1976), Huczynski and Lewis (1980), and Baldwin and Ford (1988) identified supervisory support as a multidimensional construct because

it includes aspects such as encouragement, goal setting activities, reinforcement and modeling. It has been suggested that supervisor's influence employee motivation to learn via cues and signals communicated through supervisory actions that represent a supportive reward-based environment (Baldwin & Magjuka, 1991). Ideally, a 'supportive reward-based environment' born of supervisory support should be one that is rich with performance feedback and reinforcement, mentoring, modeling, and a positive attitude toward training, to promote training transfer (Komaki, Heinemann, & Lawson, 1980; Baldwin & Ford, 1988; Tannenbaum & Yukl, 1992; Tziner et al., 1991; Noe, 1986; Curry et al., 1994; McSherry & Taylor, 1994). For instance, supervisors need to reinforce the application of what was learned during training. They can inform trainees on how to work successfully within the environment of the organisation (Latham & Crandall, 1991; McSherry & Taylor, 1994). Cues from supervisors can either facilitate or inhibit (i.e. positive reinforcement or punitive sanction) transfer of training (Goldstein, 1985). Based on cues, trainees will be either motivated or unmotivated to use, apply, and practice their newly trained skills in their jobs (Huczynski & Lewis, 1980; Tziner, Haccoun, & Kadish, 1991; Taylor, 1992). To facilitate transfer, the supervisor must be familiar with training objectives and content (Latham & Crandall, 1991). In this way, the supervisor will be able to provide relevant opportunities to practice new skills, set specific and attainable learning goals and-on-the job action plans, and give verbal and non-verbal feedback. Through these actions, supervisors will communicate support and commitment to training (Baldwin & Ford, 1988; Marx, 1982), and help focus incumbents to proper use of training content in the job context (Wexley and Baldwin, 1986).

Reinforcement is particularly important during the initial phase of transfer, when, according to Marx (1982), more errors are likely to occur. At this stage, supervisors can help trainees to maintain and generalise newly learnt behaviours. For instance, modeling has been shown to have a powerful effect on behavioural change (Sims & Manz, 1982, cited in Baldwin & Ford, 1988, p. 93).

For the organisation, the supervisor represents the medium through which it 'processes action'; therefore, supervisors are key control points in determining employees' work experience (Bunker & Wijnberg, 1985). For instance, supervisors may provide differential opportunities to perform trained task on the job dependent on their

attitude to training and their perceptions of the trainee (Ford et al., 1992). In the former, Curry et al (1994) suggests that the value placed on training by supervisors can affect trainee attitudes towards training in that it influences trainees perceived relevance of training. In the latter, the mentoring function guided by supervisors perceptions of likeability, and career potential have been found to influence the amount of guidance and opportunity (in terms of complex and challenging) offered by the supervisor to the trainee (Noe, 1988).

Supervisory support to apply new skills has consistently been found to influence transfer of training. For instance, Fleishman (1953) illustrated how trainees with supportive supervisors more effectively transferred leadership concepts to the jobs compared to those with unsupportive supervisors. Taylor (1992) found supervisory support to be an important predictor of training transfer. Similarly, Komaki et al's (1980) and Garavalgia (1993) provided empirical confirmation for the influence of positive supervisory support on transfer maintenance. Gregoire et al's (1998) found that an increase in perceived supervisory support lead to an increase in training effectiveness. Looking at inhibitory effects of supervising, Vandenput (1973) found supervisory behaviour to be the most important inhibitory factor to transfer. In an investigation of an in-house continuous training program, Meuse (1985) demonstrated that those who perceived greater supervisory support, particularly newer and less senior employees, were more likely to participate in training. While Huczynski and Lewis (1980), and Tziner, Haccoun and Kadish (1991) found that supervisory support for training showed the strongest relationship with trainee's intentions to transfer new skills.

Supervisory support has mostly been treated as a global construct. This prompted McSherry and Taylor (1994) to study specific supervisory support behaviours based on a compressed version of Broad's (1982) list of management actions to support training. Adapting Broad's (1982) list to suit outdoor team-building training, McSherry & Taylor (1994) evidenced the importance of supervisory support to transfer. In addition, they identified specific supervisory behaviours that predict transfer of training. Finally, Bahn (1973) found that supervisory resistance to training could be traced to failures to include all levels of work in training design, as well as the belief that the training department does not really know the conditions on the job. This can become a disincentive to employee training, particularly when supervisors do not accept the

practices taught in training (Salinger, 1973).

There is evidently a need for further research into the effects of supervisory support on transfer. The 'Evaluative Research & Measurement Model' (Holton et al., 1997, 1998) includes supervisory support in its organisational climate. This investigation will measure both supervisory support and sanction. Supervisory support is construed as the extent to which managers support and reinforce the use of learning on the job. Supervisory support has been operationalised as the 'managers' involvement in clarifying performance expectations following training, identifying opportunities to apply new skills, setting realistic performance goals based on training, working with trainees' on problems encountered while applying new skills, and providing feedback when individuals successfully use new abilities' (Holton et al, 1997, 1998).

Data on supervisory sanction is also collected according to Holton et al's (1997, 1998) model. Supervisory sanction denotes the extent to which trainees perceive negative responses from managers when applying skills learned in training to the job (Holton et al., 1997, 1998). This occurs when supervisors oppose the use of skills and knowledge, and/or used different techniques from those taught in training. It also includes the lack of assistance from supervisors in finding opportunities to apply and knowledge, or inadequate or negative feedback when trainees successfully apply learning on the job (Holton et al., 1997).

Peer Support, Peer Sanction - Resistance/Openness to Change

Another potent force in the climate of an organisation which socializes trainees to use newly learned skills on the job is the dynamic relationship between the trainee and his/her peers, known as peer support (Latham & Crandall, 1991). Interactions between peers can provide support and reinforcement to learn during training, and to subsequently apply what was learned (Latham & Crandall, 1991). Previous research suggests that individuals who have greater peer support from co-workers will have higher self-efficacy and superior copying mechanisms for job changes (such as the application of new skills at work) (Evans, 1963; Latham & Crandall, 1991). In a meta-analysis, Slavin (1983) found that participation in peer groups for cooperative learning increased training effectiveness.

It is believed that peer groups facilitate learning and transfer through the discussion of training content and through public commitment to performance goals (Lockatch, 1989; Latham & Crandall, 1991). More recently, Ford et al (1992), Goldstein (1986), and Tziner et al (1991) suggested that workgroup support was an important component in a 'climate for transfer' because it allows individuals to feel more comfortable to utilise new skills. Finally, a study by Saxe (1988) added further support when he revealed that trainees who engage in peer interaction perform significantly better than those without peer interaction.

In this investigation, peer support is construed as the degree to which peers reinforce and support the use of learning on the job (Holton et al., 1997, 1998). This included the degree to which peers mutually identify and implement opportunities to apply skills and knowledge learned in training; encourage the utility of and expect the application of new skills; display patience with difficulties linked to applying new skills; or demonstrate appreciation for the use of new skills (Holton et al., 1997, 1998).

In addition to peer support, peer sanction referred to as 'resistance/openness to change'. Resistance/openness to change is defined as trainees' perception of resistance or discouragement to the use of newly acquired skills and knowledge, from prevailing group norms in the work setting (Holton et al., 1997, 1998). This includes work groups' resistance to change, willingness to invest energy in changing, and the level of support furnished to trainees who use techniques learned in training (Holton et al., 1997, 1998).

Personal Outcomes – Positive/Negative

Finally, secondary influences of the work environment also involve perceived personal outcomes (positive and negative). No literature was available on these constructs, although Holton et al's (1997) provides descriptions. 'Personal outcomes – positive' refers to the extent to which using training in the job leads to outcomes that are positive for individuals (Holton et al., 1997). Positive outcomes could for instance include increased work productivity and effectiveness, increased job satisfaction, greater respect, salary reviews, the opportunity to further career and advance in the organisation. 'Personal outcomes – negative' refers to the perception that the use of newly learnt skills will lead to unfavourable outcomes (such as reprimand, peer resentment, increased workload, sanctions, and unfavourable performance appraisals).

Ability

The individual's ability has been related to the success of learning in training. High ability individuals are more likely to complete trained tasks, especially more complex ones, and do so to a higher standard (Baldwin & Ford, 1988; Ford et al., 1992; Lawler, 1966). Success in training is linked to supervisory support, whereby supervisors' perceptions of the trainee affect the opportunities provided (Baldwin & Ford, 1988, Ford et al., 1992). In conceptual terms, ability is a personal characteristic of a trainee, determining his/her capacity to comprehend new material, acquire, and 'experiment' with new skills on the job (Huczynski & Lewis, 1988). Most often ability has been operationalised in a cognitive framework, and restricted to intellectual capacity (Neel & Dunn, 1959; Cannon-Bowers, 1995). Using this perspective, Neel & Dunn (1959) demonstrated that intellectual test scores were highly correlated with exam results. Noe (1986) suggested that both cognitive and psychomotor skills possessed by trainees directly influence whether or not they will be able to understand and master the content of the training courses. Robertson and Downs (1979, cited in Noe, 1986) estimated that 16 percent of the variance in trainee performance can be attributed to ability.

In the present investigation, ability was linked to the operational constructs of: opportunity to use learning, personal capacity for transfer, perceived content validity, and transfer design. In the remaining sections of this chapter, each of these factors is considered in terms of literature and use in this study.

Opportunity to Use

One of the factors identified as important to training transfer by Baldwin and Ford (1988), Goldstein (1986), and Wexley and Latham (1991) is the 'opportunity to perform' trained skills in the work environment. Embodying task constraints (Peters & O'Connor, 1980; & O'Connor & Rudolf, 1980), opportunity to use learning has also been conceptualised as 'environmental favourability.' Aspects, including the availability of tools, resources, time, finances, which can act to facilitate, or when withdrawn, inhibit, transfer of training (Facteau et al., 1995). Opportunity to use learning outcomes, or opportunity to perform, covers the extent to which a trainee is provided with, or actively obtains, work experience relevant to the task for which he or she is trained (Ford et al., 1992; Facteau et al., 1995; Holton et al., 1998). The definition implies both

the importance of opportunity from the work environment via the supervisor, and the effort of trainees' to obtain work experience. Opportunity to perform is multidimensional, with three distinct dimensions: breadth, activity level, and type of task performed (Ford et al., 1991). Breadth refers to the number of trained tasks the employee can perform upon their return to work, with an increasing number implying greater breadth. Activity levels refers to the number of times, or frequency with which the employee performs new skills on the job. Typically, the more times the trainee performs the new skills, the more their performance will improve (Ackerman & Humphreys, 1991). Finally, the type of task performed revolves around the complexity and variety of tasks learned, which are subsequently performed on the job. In this situation an employee may not be able to perform the variety and most complex learned skills back at work, with the result that they only practice relative simple tasks.

A number of social factors have been identified to affect the opportunity to perform new skills. Instances of these include supervisory support, workgroup support, and pace of workflow (Baldwin & Ford, 1988). Garavaglia (1993, pp. 66) suggests that immediate supervisors are in the best position to provide opportunities to practice new skills by, 'planning practice activities and assigning new tasks that involve training content.' Ford et al's (1992) studied differential opportunities to perform trained tasks. They established relationships with various work context (i.e. supervisory support, climate) and individual (self-efficacy, ability) factors. It has been suggested that in order for trainees to gain confidence in their ability to perform their new skills, they must be given the opportunity to practice and rehearse (Tannenbaum & Yukl, 1992; Garavaglia, 1993). Trainees who face environmental limitations to transference, will more than likely demonstrate/exhibit greater skill decay than their counterparts who receive greater opportunity to practice what they have learned (Pentland, 1989, cited in Tracey & Tannenbaum, 1995). Similarly, Fendrich, Healy, Meiskey, Crutcher, Little, Borne (1988) demonstrated that a lack of opportunity to perform training in the job lead to a performance decrement. Finally, Ford, Quinones, and Sorra (1992) found that trainees who perform similar jobs may experience significantly different opportunities to apply recently learned skills on the job. Thus, work environment can constrain the ability to transfer.

'Opportunity to use learning' was conceptualised in this study as the degree to which trainees are furnished with or obtain resources and tasks in their work which enables them to use the skills taught in training (Holton et al., 1997, 1998). This encompassed the organisations provision of opportunities to apply new learning, resources needed to use new skills (i.e. equipment, information, materials, & supplies), and adequate financial and human resources (Holton et al., 1997, 1998).

Personal Capacity for Transfer

This phrase is used to denote the degree to which employees have the time and energy in their work to make changes that 'parallel' what was learnt in training. It addresses the extent to which employee's work load, schedule, personal energy, and stress levels facilitate or inhibit the application of training 'back' in the job (Holton et al, 1997).

Training Relevance - Perceived Content Validity

The more meaningful the learning material to the trainee, the higher the probability of the learning, retention, and application in the target environment (Goldstein, 1986; Baldwin & Ford, 1988). Meaningfulness of a training intervention is determined by the extent to which a trainee regards training as relevant to their work, and by his/her capacity to perform that work. In properly designed training interventions where training needs analysis (including a personal, organisational, and task analysis) has been conducted, the probability that the trainee will perceive the training as irrelevant is minimised (Goldstein, 1993). Investigations by Goldstein (1986), Mathieu et al's (1992), & Axtell et al's (1996) found that trainees' who perceived their training as relevant to their jobs were more committed to learning in training and transfer. Moreover, it has been demonstrated that establishing a link of relevance between training and the work setting is important to reduce resistance to training, and increase training credibility (Tannenbaum & Yukl, 1992).

In this investigation, 'training relevance' is construed as 'perceived content validity'. It is defined as the extent to which trainees 'judge' training content to reflect job requirements (Holton et al., 1997, 1998). This construct addressed the level to which knowledge and skills taught in training are similar to trainees' performance expectations in addition to the individuals needs to perform more effectively. Furthermore, the factor

included the degree to which instructional methods, aids, and equipment used in training are similar to those used in an individual's job setting (Holton et al., 1997, 1998).

Transfer Design

Transfer of training can be inhibited by inadequate post-training design to transfer learning. Although incorporating elements of the opportunity to practice new learning, transfer design differs in that it represents the provision of proactive mechanisms to facilitate transfer. Examples are goal-setting (Feldman, 1981; Anderson & Wexley, 1983), relapse prevention (Marx, 1980; Noe, 1986), and behavioural self-management (Luthan & Davis, 1979; Gist, Stevens, & Bavetta, 1991). As these were discussed in Chapter 3 suffice it to say that transfer design factors subsume deliberate interventions designed to improve transfer of training. Moreover, they include the use of the learning principles during training design (as discussed in Chapter 3).

In this research, the extent to which transfer mechanisms are included in design is predicted to influence transfer of training (Holton et al., 1997). Trainees exposed to methods of applying their training will be more likely to transfer. Transfer design implies that training is designed to link learning with job performance. It may include the use of 'behavioural modeling' or simulations, which mirror the actual job activity, and/or the demonstration of how to apply new skills on the job (Holton et al., 1997).

Chapter Six

The Present Investigation

Introduction

This Chapter is divided into three major methodological sections. Initially, 'Section one' gives an overview of the research objectives, questions, and hypotheses. 'Section two' reviews the research design, levels of the dependent and independent variables, ethical and validity concerns. Lastly, 'Section three' considers instrumentation, sampling and data collection.

Section One

Aims & Assumptions

The objectives of the present investigation can be understood in terms of six areas of research interest within the domain of training transfer. In order to facilitate readability, objectives are presented with their respective research questions and hypotheses in six 'alpha-divided' sections. In 'Section A', the primary research objective is outline. 'Section B', issues pertaining to scales development and scale adaptation are discussed. In 'Section C', attention turns to treatment group comparisons. 'Section D' focuses on an examination of general input dimensions (clarified later) of treatment group characteristics. From here, 'Section E,' articulates the investigative position on evaluating the influence of the 'intervening conditions' (IC) on perceived training transfer (PTT). Within 'Section E' two further sub-sections divide the examination of the IC into 'trainee characteristics' and 'work environment characteristics' (transfer climate), mirroring the scheme from both Chapter 5, and the administrative guide of the Learning Transfer Questionnaire (LTQ)(Cf. Appendix VI).

Aims, Research Questions, & Hypotheses: Qualification

A three-tiered framework spanning from aims, research questions, and hypotheses may seem repetitive and even redundant. However, this approach is embraced because it illustrates the transition from the abstract form of the aims through to a process of concretisation embodied in the research questions. The formulation of questions

allowed the development of testable hypothesis. Consequently, research questions can be seen as re-formulations of objectives. This approach was used to illustrate the direction of hypothesis building and planned statistical analysis.

Section A

Primary Objective

The primary objective was to examine the degree to which the intervening conditions affected perceived training transfer (PTT). The overall aim relates to studying training transfer (TT) from an In-house training intervention in a New Zealand corporation. The specific aim is to explore the extent to which skills and attitudes learnt on a formal self-administered training program are perceived to have been transferred, and applied 'back' in the work setting. Of particular interest is the perceived level of change in the practice of 'managing customer complaints' as a consequence of changes in attitudes, and skills 'learnt' in a so-called 'Managing Customer Complaints training Module.'

Section B

Development of Psychometric Instruments

Aims

The Perceived Transfer Questionnaire (PTQ)

In order to achieve the research goals (Chapter 6, Section C to F) it was necessary to develop valid (perceived) transfer of training instruments. This requirement arose from the need for a 'course relevant' (tailored to training) criteria for assessing the learning and performance outcomes from training (Holton, 1996). Further, this scale provided a dependent variable against which the affects of the 'intervening conditions' could be determined (Burke & Day, 1986; Burke, Coruzzi, & Church, 1996; Baldwin & Ford, 1988; Tracey et al., 1995). The means by which this objective was achieved is outlined in section 3 of this chapter. Results supporting the use for the derived instrument are presented in Chapter 7.

The Learning Transfer Questionnaire (LTQ)

Because the LTQ was developed for instruction-based North American training

programs, an objective was set to make minor modifications for a self-administered New Zealand in-house training intervention. Specifically, the LTQ had to be adapted to suit the present needs. The objective here was to make alterations in a manner that maintain the original meaning (as far as possible) and psychometric properties of the published LTQ.

Section C

Intra-Group Comparisons

Aim

As an initial step toward fulfilling the primary objective, data was explored to determine whether training had resulted in changes in work place skills and attitudes for (managing customer complaints) for those who had participated in training.

Research Question

To what extent are intended training outcomes of the *Managing Customer Complaints training Module* (as specified by the aims and objectives of the training intervention) reflected in perceived changes in work place practices?

Hypothesis

- It is hypothesised that the skills and attitudes will be perceived to be transferred from training (*Managing Customer Complaints training module*) into the work setting for all groups participating in training (i.e. treatment groups).

- It is hypothesised that those not participating in training (i.e. control group) will perceive no significant change in their skills and attitudes for managing customer complaints in the work setting.

Inter-Group Comparisons

Aim

The aim is to determine the extent to which perceived transfer of training (from the *Managing Customer Complaints training module*) differed between those who

participated in training and those who did not.

Research Question

For which group was the training (*Managing Customer Complaints*) most/least successful in terms of PTT?

Hypothesis

- It is hypothesised that there will be a significant difference between the treatment and control groups' perceptions of training transfer.

Section D

Influence of General Input Characteristics on Perceived Training Transfer

Aim

The aim is to determine the extent to which general input characteristics (i.e. demographics, employment characteristics, & training beliefs) of members within the treatment conditions influenced PTT. To fulfil this objective, data on nine participant characteristics would be collected and analysed (Cf. Questionnaire 2, Appendix III).

Research Question

Within the treatment conditions, which background dimension(s) related to success in training (*Managing Customer complaints*) in terms of PTT?

Hypothesis

- It is assumed that sales officers' will have more positive perceptions of training transfer from the '*Managing Customer Complaints training Module'* than the bank tellers.

- Although no directional hypothesis is proposed, it is assumed that trainees gender will be related to perceptions of training transfer.

- Although no directional hypothesis is proposed, it is assumed that trainees ethnicity will be related to perceptions of training transfer.

- Although no directional hypothesis is proposed, it is posited that there is a relationship between trainee age and perceptions of training transfer.

- It is hypothesised that those entering the organisation more recently will perceive greater training transfer. This hypothesis is based on the work of Meuse (1985) who demonstrated that those that are newer and less senior would be more likely to participate in training.

- Without a directional hypothesis, 'time spent in a job position' is assumed to be related to perceptions of training transfer.

- It is hypothesised that those who believed that 'training would improve job performance' will perceive greater training transfer.

- It is hypothesised that those who believed that 'training is tailored to job needs' will perceive greater training transfer.

- Further, participants' perception of self-directed learning will be examined to see if it influences perceptions of training transfer. Self-directed learn refers to the mode in which training was delivered to trainees. In this instance, trainees were expected to engage in training by following a set of instructional material that led them through the training intervention.

Section E

The Influence of the Intervening Conditions on Perceived Training Transfer

Trainee Characteristics Scales

Aims

The aim was to investigate the extent to which 'trainee characteristic' influence PTT of attitudes and skills learnt in the 'Managing Customer Complaints Training Module.'

And to investigate the extent to which trainee 'motivational factors' influenced PTT of skills and attitudes learnt in the 'Managing Customer Complaints Training Module.'

Research Questions

To what extent can factors within the 'trainees characteristics scale' (*Learner Readiness, and Performance Self-Efficacy*) explain PTT?

To what extent can factors within the 'trainee motivational scale *(Motivation to Transfer Learning, Transfer Effort – Performance Expectations, Performance – Outcomes Expectations)* explain PTT?

Collective & Relative Predictive Power of 'Trainee Characteristics'

Hypotheses

- It is hypothesised that participants with more positive trainee characteristic perceptions *(including higher Learner Readiness, and Performance Self-Efficacy)* will perceive greater training transfer from the 'Managing Customer Complaints training Module.'

- It hypothesised that either 'Learner Readiness' or 'Performance Self-Efficacy' from the 'Trainee Characteristics dimensions' will demonstrate a systematic, discernable pattern in predicting PTT.

Aggregate & Relative Predictive Power of Motivational Dimensions

Hypotheses

- It is hypothesised that participants with higher motivation *(including higher Motivation to Transfer Learning, Transfer Effort – Performance Expectations, Performance – Outcomes Expectations)* will perceive greater training transfer from the training module back to their jobs.

- It is hypothesised specific factors within the 'Motivational Scale' *(including higher Motivation to Transfer Learning, Transfer Effort – Performance Expectations, Performance – Outcomes Expectations)* will be more predictive of PTT than others.

Work Environment Scales

Aims

To investigate the extent to which the 'work environment' influences PTT of skills and attitudes learnt in the 'Managing Customer Complaints Training Module.'

To investigate the extent to which 'Ability factors' influence PTT of skills and attitudes learnt in the 'Managing Customer Complaints Training Module.'

Research Questions

To what extent can factors within the 'work environment' (*Feedback/Performance Coaching, Supervisory/manager support, Supervisor/Manager Sanction, Peer Support, Resistance/Openness to Change, Personal Outcomes – Positive, Personal Outcomes – Negative)* explain PTT?

To what extent can factors within the 'Ability Scale' (*Opportunity to Use Learning, Personal Capacity for Transfer, Perceived Content Validity, Transfer design)* explain PTT?

Collective & Comparative Predictive Power of the 'Work Environment'

Hypotheses

- It is hypothesised that participants with more positive perceptions of the 'work environment' *(including higher perceptions across Feedback/Performance Coaching, Supervisory/Manager Support, Supervisory/Manager Sanction, Peer Support, Resistance/Openness to Change, Personal Outcomes – Positive, Personal Outcomes – Negative)* will perceive greater training transfer from the training module.

- It is hypothesised that specific factors of transfer conditions within 'Work Environment Scales' (*Feedback/Performance Coaching, Supervisory/Manager Support, Supervisory/Manager Sanction, Peer Support, Resistance/Openness to Change, Personal Outcomes – Positive, Personal Outcomes – Negative)* will be more predictive of perceived training transfer than others.

Composite & Relative Predictive Power of 'Ability Scales'

- It is hypothesised that participants with more positive perception on the 'Ability dimensions' *(including Personal Capacity for Transfer, Perceived Content Validity, and Transfer Design)* will perceive greater training transfer from the Managing Customer Complaints training module.

- It is hypothesised that specific factors of transfer conditions from the 'Ability dimensions' *(including Personal Capacity for Transfer, Perceived Content Validity, or Transfer Design)* will be more predictive of PTT from the *Managing Customer Complaints training module* than other factors.

Section F

Replication of a theorised Relationship between the Intervening Conditions & Training Transfers

Aim

The aim was to substantiate the extent to which theorised (as posited by Holton's (1996) 'Evaluative Research & Measurement Model') and reported relationships between 'intervening conditions' and training transfer (Holton et al., 1997) were replicated in this investigation. In other words, the aim was to assess the extent to which findings in Holton et al (1997) study were repeated. Holton et al's (1997) found that the following factors (in order of appearance) were most predictive of training transfer: *supervisory support, opportunity to use learning, peer support, supervisory sanction, personal outcomes – positive, personal outcomes – negative, resistance, perceived content validity and transfer design.*

Objectives 'Section E' through 'F' are based on the assumption that specific sets of identified transfer conditions differentially impact on PTT (James & James 1989; Baldwin & Ford 1988; Schneider & Rentsch, 1988; Tannenbaum & Yukl, 1992; Rouiller & Goldstein, 1993; Facteau et al, 1995; Holton et al, 1997).

Research Question

What is the relative impact of all 'intervening conditions' on PTT? In other words, to what extent do the intervening conditions, taken together (all 16 factors in the LTQ), influence PTT in a systematic pattern resembling that reported by Holton et al (1997)?

Hypothesis

- Following Holton et al's (1997), it is hypothesised that specific 'intervening conditions' (out of the entire set of explanatory scales) will be more predictive of perceived training transfer. Specifically, and in order, *Supervisory Support, Opportunity to Use Learning, Peer Support, Supervisory Sanction, Personal Outcomes – Positive, Personal Outcomes – Negative, Resistance/Openness to*

Change, Perceived Content Validity and Transfer Design were assumed to appear as the most salient explanatory factors of PTT (Holton et al., 1997).

Section Two

Research Design

Transfer of Training as the Criterion for Training Effectiveness

In this context, program evaluation can be described as an attempt to systematically appraise the effectiveness of a training intervention in absolute terms (Fink & Kosecoff, 1978). Absolute terms were defined according to Holton's (1997) 'Evaluative Research & Measurement Model' of training outcomes, including learning and individual performance, which were measured using perceptual instruments (Cf. Chapter 6, section three). Moreover, as this investigation is transfer oriented, the evaluative design used was an attempt to reveal the maintenance and practice of skills acquired during training back in the job. As noted by Tracey and Tannenbaum (1995), the key criterion for evaluating training effectiveness is the transfer of the training to the job. Thus the major concern here was to evaluate the degree to which skills learnt during training are perceived to have being maintained and practiced back on the job (Goldstein, 1980; Baldwin & Ford, 1988).

The present investigation uses a number of different (quantitative and qualitative) measures for both the dependent and independent variables. This created a multi-leveled training evaluation that qualifies as a 'triangulated methodology' (Goldstein, 1991). Triangulation refers to the seeking of information from multiple data sources and multiple methods to assess convergence (Stiles, 1990). Because self-rating scales were primarily used, there was a need to attend to potential validity problems inherent in self-rated scales (Goldstein, 1993). Thus a triangulated methodology presented a technique to overcome these threats to validity. As noted by Marshall & Rossman (1989, pp. 20) triangulation refers *'to the act of bringing more than one source of data to bear on a single point.'* Specifically, both quantitative and qualitative data was collected in this study with the assumption that corroborate between these different sources of data would add to the validity and reliability of findings.

A Quasi-Experimental Design

Quasi-experimental designs are frequently used in program evaluation, of which the present study is an example (Cook & Campbell, 1976; Cook, Campbell, & Peracchio, 1990). Given the nature of the applied setting, it is impossible, both practically and ethically to assign individuals to control and treatment groups in a randomized manner, this distinguishing the true experiments. When the constraints of the work environment are present, the nature, tasks, duties, and demands of the participants' jobs can act to compound the problems of randomization.

Although not entirely satisfactory for causal inferences, the quasi-experimental design presented the only viable choice for data collection for this investigation. A control group serves to increase the rigour by providing a set of cases against which treatment group responses can be assessed (as does the collection of baseline data: pre-test). While controls were small in number, a certain degree of equivalence can be established. A background questionnaire was used to elicit salient demographic, job, pre-training perception, and participant-organisational information to help match the control and treatment groups (Lieberman, 1956; cited in Cook & Campbell, 1976).

The Evaluative Research & Measurement Model

As mentioned earlier, Holton's (1996) 'Evaluative Research & Measurement Model' was adopted to guide conceptualisation, design, and measurement of dimensions in this investigation (Cf. Chapter 3). Incorporating ideas from Kirkpatrick's (1967, 1994) four-level model, the 'Evaluative Research & Measurement Model' includes *learning*, but abandons *reactions*, and replaces *behaviour* with *individual performance*. The Kirkpatrick (1967, 1994) *reaction* measure was excluded both for theoretical reasons and because a positive reaction is not seen to be an important prerequisite for learning (Alliger & Janak, 1989; Bretz & Thompsett, 1992; Mathieu, Martineau, Tannenbaum, 1993; Holton et al, 1996).

The 'Evaluative Research & Measurement model' includes primary and secondary influences on training transfer because of their interventional effects. As in Holton's (1996) 'Evaluative Research & Measurement Model', dependent variables represented outcomes from training, including learning and individual performance.

Independent variables included participation and non-participation in training, operationalised in this design as the treatment and control groups. The primary and secondary 'intervening factors' were assigned the role of explanatory independent variables in the design. For full descriptions of independent and dependent factors refer to Chapter 6, Section Three. The collection of data on intervening factors was facilitated with the adoption of a modified version of Holton et al's (1997) Learning Transfer Questionnaire (LTQ) in accordance with the Evaluative Research & Measurement Model. However, no 'hard organisational data' (organisational indicator) was collected regarding individual or organisational performance; including for instance, the cost/benefits of training, customer complaint volume, customer satisfaction, or customer retention data.

Treatment & Control

The present investigation was conducted in an organisational setting where participants were assigned to training in a mandatory fashion by management. A non-random sample of matching colleagues whom had not yet participated in the training (and who were from other departments and/or branches within the organisation) were enlisted as a control group. Separation of the control and treatment group was necessary to reduce the possibility of contamination of control group members' work practices through exposure to treatment group participants who had already undertaken training. It was felt that either the control or the treatment group might have their work practices modify (influenced) if informally exposed to the 'new ways of working' of those who had attended training. Specifically, trained individuals would export their new training back into the work environment, where it would influence work practices.

Pre- and Post-testing

In order to verify changes, baseline measures of control and treatment groups were taken before the intervention and matched against a subsequent post-test. The pre-/post-test relied on the PTT scales, used as the evaluative criterion for determining the level of perceived change in skill and attitude on the job. The same instrumentation was used to measure the degree to which changes in perceived new work behaviours were maintained and generalised on the job (e.g. training transfer) (Baldwin & Ford, 1988; Katowitz, & Eoediger, 1991). After training, and between the time of pre- and post-

testing, the influences of the intervening conditions were measured with the LTQ (Holton et al., 1997). Pre-test (baseline measure), post-test (eight weeks), and the assessment of intervening conditions (four weeks post-training) followed the following time schedule: -

			TIME	
Conditions	Pre-test Time 1 (2 Weeks)		I.C (4 weeks)	Post-test Time 2 (8 Weeks)
I.V	**D.V**		**I.V**	**D.V**
Treated				
Treatment Group 1 ➢ Bank Tellers	O1	X	TC	02
Treatment Group 2 ➢ Sales Officers	O1	X	TC	02
Treatment Group 3 ➢ Others	O1	X	TC	02
Untreated				
Control Groups 1 ➢ Bank Tellers	O1		TC	02
Control Group 2 ➢ Sales Officers	O1		TC	02
Control Group 3 ➢ Others	O1		TC	02

Figure 6.1: Untreated Control Group Design with Pre-Test & Post-Test

The notation 'X' represents the treatment (Managing Customer Complaints training) with 'O1' and 'O2' representing data collection points for the perceived transfer of training scale (evaluative criterion) using a survey methodology. The notation 'TC' represents the data collection point for the survey of intervening conditions (IC) using the Learning Transfer Questionnaire (LTQ). The dotted line indicates that groups are not randomized. The collection of data from three types of treatment groups (sales officers; tellers/information officers; & others) will strengthen the validity of both the evaluative criterion (DV) and Holtons et al's (1997) LTQ (Cook & Campbell, 1976; Cook, Campbell & Peracchio, 1990). Addition methodological strength was added by sampling groups (treatment & control) simultaneously. This maneuver reduced contamination that may occur from confounding variables that arise between the time of treatment and testing. Further, if contamination does occur and is not detected then

simultaneous sampling will ensure that to some extent confounding variables are standardised between groups.

Independent & Dependent Variables

To achieve research goals in this design, multiple independent variables were defined, including the treatment and control conditions. Another set of independent variables corresponds to the intervening conditions of Holton et al's (1996) 'Evaluative Research & Measurement Model,' used to account for the influences on learning and performance outcomes (i.e. training transfer). Multiple dependent variables were used, including perceived transfer of training, views represented in open-ended responses, and background measures.

Ethics & Confidentiality

Typically, four ethical issues arise from program evaluation including: (1) violation of subject privacy; (2) naïve participant deception; (3) the unfairness of withholding the treatment from the control group; and (4) the possibility of harmful side effects arising from participation (Brook, 1982). In this study, the only issue of concern was violation of subject privacy. To attend to this, subjects were informed of the aims of the investigation and assured of both confidentiality and anonymity of their responses and identity from all but the researcher. Participants were also assigned individual codes during the initial response for use on all questionnaires. Responses were mailed directly back to the researcher, bypassing the organisation. These strategies were employed because of the sensitive nature of the material that could cause difficulties for participants at work. The anticipated consequence of steps taken to comply with ethical criteria was a reduced response rate. The current investigation involved no subject deception given that all participants were fully informed of the objectives and procedures used in study prior testing. The control group was not withheld from treatment, but rather selected from a population who was to undertake training at a time after the completion of the study. No harmful effects were anticipated from processing the subject matter in any of the instruments.

Validity

Validity arises as an issue in deciding how well the chosen design and strategy fits research aims and research questions. Four types of validity need to be considered when conducting evaluative type investigations. These include internal validity, external validity, construct validity, and statistical conclusion validity.

Internal validity is concerned with the attribution of effects in terms of distinguishing between changes caused by the training and those resulting form extraneous sources (Rutmen, 1980). Cook & Campbell (1976) identified seven sources of impairing validity in a quasi-experimental research design. Presently, only those that threaten the designs internal validity will be discussed.

The history of events that occur between pre- and post-testing may be such that causality cannot be attributed to the training intervention. In the present study, history was ruled out as a threat to internal validity through the use of a background interviews conducted with the HR manager, training designer, and training facilitator. In the interviews, questions were asked pertaining to the stability of the work setting. Additionally, all groups were tested at the same time to ensure that to some extent environmental conditions and work events would be similar throughout the organisation.

Changes in instrumentation from pre- and post-testing, and between treatment and control groups was ruled out as a major threat because questions only varied in terms of their verb tenses and randomisation of items between Questionnaires 1 and 4. Random order of items was employed to reduce the likelihood of scale recognition, which can led to a demand bias, and serial order effects.

Selection bias was at least mitigated by matching groups. Information on input characteristics such as demographic variables was obtained from a background questionnaire, which was used to establish near equivalence of the treatment and control groups. Moreover, all those selected for the treatment and control groups complied with the criterion for participation in the training program, including a 75% pass rate on the previous module of the *Sales Accreditation Framework* (discussed in detail in Chapter 6, pp. 128). Following sampling, descriptive statistics are used to establish the degree of similarity between treatment and control groups.

A second potential threat to the quasi-experimental design stems from a lack of external validity. This is the criterion for deciding whether or not findings can be generalised to other people, times, and settings. This threat arises when the sample differs from the population to which the findings are to be generalised. One possible area of concern here was the interaction effect of participants work place (in terms they come from different branches: different environments), insofar as the treatment groups work environment differed from the control groups. This was controlled for by selecting treatment and control groups from a diversity of branch settings within one geographical region of the Bank.

A third threat relates to construct validity. It is necessary to show that theoretical constructs underlying the variables and data collection tools permit practical interpretation of the dependent variable (evaluative criterion). This was overcome with the use of 'training content analysis', subject matter experts, and the content validity ratio (CVR) of Ford & Wroten (1984) during the construction of the perceived transfer of training questionnaire.

The fourth issue relates to statistical conclusions, sampling deficiencies and potential use of inappropriate statistical tests (Tabachnick & Fidell, 1989; Hair, Anderson, Tatham, & Black, 1998; Brook, 1997). To control for this, scales would be tested for test re-test reliability using Cronbach's alpha coefficient. Type II errors would be controlled for by selecting a confidence interval of .01 for inferential tests, by minimising the number of statistical comparisons that can result in inflated test statistics. Finally, factor analysis of the dependent variables would be used to reduce the number of comparisons prior to multiple regression analysis (thus reducing the occurrence of Type II errors). This is appropriate with smaller samples, which are more sensitive to violations of the statistical assumptions.

Section Three

Instrument Sampling & Data Collection

This section reviews the instruments used to collect data for the investigation. The

specifications of psychometric tools should clarify the operation of constructs and the system of variables. Instruments are described in terms of their purpose, development, adoption, modification, and psychometric properties. This section begins with a review of a three-part customized transfer of training measure developed to assess perceived transfer from the 'Managing Customer Complaints' Training module' to the job. These instruments were designed to capture the various aspects of perceived training transfer from the specific training intervention through the combined use of quantitative and qualitative data. Subsequently, the rationale for the adoption and modification of Holton's (1997, 1998) Learning Transfer Questionnaire (LTQ) is discussed. The responses from the LTQ were augmented with qualitative data to give descriptive details pertaining to the role that supervisors and peers played in training transfer. The next sub-section reviews the measurement of the independent variables. The rationale, development, and form of the background questionnaire and background interviews are discussed. These tools were used with participants, HR manager, training designer and facilitator respectively. The source and selection of sample is discussed together with the criterion for inclusion/exclusion of participants. A description of the target organisation and the *Sales Accreditation Framework* from which the sample and training originated is given. Finally, the data collection process (three-phase survey) is reviewed.

Measuring the Dependent Variable: Perceived transfer of Training

Part One

Perceived Transfer of Training Scale

In order to gain a credible measure of perceived training transfer, a scale was developed through the use of Rogers' (1995), Fink and Kosecoff's (1978) program evaluation standards. Specifically, scale items were derived through a content analysis of the learning and instructional objectives, training material, instructional strategies, pre-course evaluation and assessments from the *Managing Customer Complaints training Module*. Using content analysis, a complete set of evaluative program descriptors (EPD) was developed for the 'Managing Customer Complaints training module'. The EPD's (Cf. Appendix VII) are statements that define successful accomplishment of program goals, objectives, and activities, which themselves represent successful learning (Fink & Kosecoff, 1978). In order to operationalise successful accomplishment of program goals,

objectives, and activities for a training transfer investigation, evidence of training program merit was defined as skills, attitudes, knowledge, and abilities which could be transferred to the work environment (Cf. Appendix VII, Content Analysis). An example is skills that could be directly associated with effective management of customer complaints (i.e. moves customer complaint into a sales opportunity).

To make the process of inclusion/exclusion for program merit items more reliable, all included items had to meet the following criterion. All items had to capture the essence of actual work oriented knowledge, skills, attitudes, and abilities for managing customer complaints on the job.

Generally, items were interpersonally oriented. They represented overt actions/behaviours, or at least explicitly definable skills. Moreover, evidence of program merit needed to summarise training information that allowed trainees the ability to provide testimony that their on the job skills, knowledge, attitudes, and abilities had increased and improved (Fink & Kosecoff, 1978). Finally, the content analysis was conducted in a manner that allowed emergent program merit items to be categorised under the training objectives and units. This final step aided in the formation of a scale that more accurately reflected training objectives. Moreover, the grouping of items according to training objectives helped in the identification of items that essential measured the same parameter, thus double-ups of scale items was minimised.

The credibility of the derived evaluative program description (goals, activities, and evidence of merit) were scrutinized with the training designer and facilitator from ANZ Bank. These individuals were consulted as subject matter experts (SME's) on representativeness of derived scale items from the *Managing Customer Complaints training Module*. Additionally, the validity and relevance of the EPD statements was assessed by calculating the content validity ratio (CVR) based on the methodology of Ford & Wroten (1984), & Lawshe (1975). Through these processes scale items were modified, added and deleted. After a representative set of EPD's was finalised, evidence of program merit was converted to summative statement item format, which was then transformed into a self-rating transfer of training scale, the *Perceived Transfer of Training Questionnaire (PTQ)*.

The resultant 45-item scale was designed to measure trainees' perceptions of their level of training transfer from the *Managing Customer Complaints training module* to the job. These 45 items were later categorised according to seven main training objectives. Within the seven training objectives, items were grouped into one of fourteen training goals, each defining one factor of success training (Cf. Appendix VII).

These fourteen goals formed the dependent factors for statistical analysis. The psychometric properties of the dependent factors are reported in Chapter 7, *Section 2.* Before administration, items were anchored on five-point Likert-type rating scales with a built in uncertainty (unable to judge) point to eliminate forced choice. At the designated time, trainees' were required to indicate their perceived effective skill practice (use) for each training transfer item using the five-point scale (1 = not practice effectively, 2 = practice less than moderately effective, 3 = unable to judge, 4 = practice moderately effective, 5 = practice very effectively) (Tziner, Haccoun, & Kadish, 1991; McSherry, 1992). To reduce the likelihood of scale recognition during post-testing the order of the questions was randomized using random number tables. As multiple scales were being used (during both pre- and post-testing), the order in which scales were presented was regulated to reduce the likelihood of inter-scale contamination. Specifically, the perceived transfer of training questionnaire was located before the open-ended questions to reduce contamination of the open-ended responses. Likewise, background questions on the quality and value of the training were administered before questionnaires measuring dependent variables (PTQ & LTQ).

The introspective nature of self-rating makes such scales inherently subjective, although bias can be controlled by thoughtful instrument design. The present investigation set about improving the accuracy of the self-rated scale by adhering to Wherry and Bartlett`s (1982) theory of rating. Because of the comprehensive nature of the theorem and corollaries, the researcher took care to include as many of the suggestions of Wherry and Bartlett (1992) as was practically possible. Specifically, an attempt was made to maximise the true ability component of the rater and minimise environmental influences, which make up bias and error components (Wherry & Bartlett, 1982). For instance, rated items were things that were maximally controlled by rater (theorem 2). Rater items referred too easily observed behaviours (theorem 5). Rater had forewarning in the information sheet and pre-test of the type of activity to be

rated (theorem 6). The scale items were written specifically, clearly, and unambiguously to focus more easily on the desired rated behaviour (theorem 9). Respondents were informed of the confidentiality of their responses, especially from their organisation. Raters were informed of the importance of the research to their parent organisation (theorem 11). Knowledge of the intent of research was justified to the rater (theorem 12). Rated items were readily classified into a given area of behaviour (theorem 16). Although the present investigation did not, and could not meet all theorems of Wherry and Bartlett (1982), it met enough to assume that the scale would provide reliable and accurate self-ratings without the need for a pilot study.

Scale psychometrics was unavailable prior to the main study given that no pilot investigation was conducted. A pilot study was impossible to schedule given limited access to subjects in a private sector organisation. Inclusion of a pilot study was not consented by the organisation, which felt that a pilot, in addition to the main study, would be too disruptive to employees work. Despite this, post-hoc reliability tests were conducted using Cronbach's alpha coefficient for internal consistency (Cf. Chapter 7, *Section 2*).

Part Two

Open-ended Question for the Perceived Training

To combat inherent bias in self-rating scales at both the conscious and unconscious level (Wherry & Bartlett, 1982), a comparison scale was used to corroborate trainees' self reports. Typically, this is achieved through colleague and supervisor comparison ratings (McSherry 1992; Tziner, Haccoun, Kadish, 1991). Because of the ethical constraints on the present investigation, an alternative source of ratification was manifested to support the quantitative data obtained through self-rating. Specifically, textual data (using open-ended questions) was collected with the *Perceived Transfer of Training Questionnaire (PTQ)* for a qualitative analysis to corroborate the rating analysis quantitatively. Agreement between the self-rated scale and the open-ended questions would, to some degree support the assumption that the self-rated items were reliable enough to infer perceived training transfer. Concurrently, inconsistencies between the perceived self-rated training transfer scale and the open-ended questions would reduce the reliability of a subject's self-rated responses. Following the open-

ended questions is described. Finally, Cronbach's alpha coefficient for internal consistency would assist in establishing reliability and validity in the PTQ scale.

A single open-ended question was included to corroborate the credibility of the statistical findings from the self-rated PTQ scale. After training, trainees were asked to describe what impact(s) the training had had on their work. The question was designed to be 'non-leading' in terms that no training transfer effect was suggested by the wording of the question. The most salient impact of the training was left unspecified by omitting any reference to any learning objectives of the training in the phrasing of the open-ended question. In addition to its aforementioned purpose, this questionnaire would help; (1) Determine the proportion of overlap between behavioural skill items from the training transfer scale (PTQ) and the skills the trainees believed they had transferred; (2) Compare changes in trainees beliefs about effective management of customer complaints, and check whether these changes in belief were aligned to items in the training transfer scale (PTQ); and (3) ensure the inclusion of training transfer items not presented in the perceived training transfer scale (PTQ). In short, the open-ended question was expected to provide a comprehensive list of transferred skills and attitudes.

Part Three

Training Pass Rate

Further, corroboration of self-rating data was gained from a yes/no question, regarding trainees' pass grades. In order to advance to the next module of the *Sales Accreditation framework*, ANZ bank required that trainees' obtained a minimum 75% pass grade on a post-training multi-choice questionnaire as part of the banks post-training internal assessment. Because the researcher was unable to obtain the results of this internal examination, a question was included in Questionnaire 4 (Part 2 of the PTQ) asking participants to indicate whether they had obtained or not, the required pass grade. The question was reliant on the honesty of participants, who were repeatedly reminded of the anonymity and confidentiality of their responses as well as the value of an honest response to future organisational training. Individuals choosing 'no' on this question were eliminated from the data set before analysis.

Measuring the Independent Variables

Treatment & Control

The study assessed multiple independent variables. They included the main quasi-experimental condition (treatment versus control), and intervening variables measured by Holton et al's (1997) LTQ. Treatment groups were composed of individuals eligible to participate in training. For instance, group members had to occupy front-line positions in which they were in contact with trading banking customers on a daily basis as part of their regular job duties and roles.

Adopting a quasi-experimental design, allocation to groups (treatment or control) reflected the availability of individuals who were about to participate in training at the time of, or after the completion of the investigation. Those about to participate in training were sent training packages containing treatment group questionnaires (Cf. Appendix III), while those participating in training after the completion of the study received control group questionnaires (Cf. Appendix IV). Questionnaires and instructions varied slightly in terms of their reference to training and number of questions on the fourth and final questionnaire (45 for control & 49 for treatment) (Cf. Appendix III). To eliminate the possibility of contamination between the control and treatment groups as a result of participating in training, groups were separated physically according to the branch they came from. That is, branches containing candidates suitable for either groups were allocated either the control or treatment version of the questionnaires, but not both.

Another independent variable measured was job position. In both control and treatment groups, participants came from various job positions, including bank tellers and sales officers. Respondents not assuming the latter two jobs, but still occupying front-line positions, were coded as 'others'.

Perceived Transfer Climate

Part One
The Learning Transfer Questionnaire (LTQ)

The Learning Transfer Questionnaire (LTQ) II developed by Holton et al's (1997, 1998) is a fourth-generation generically designed instrument intended for the measurement of perceived transfer climate (Cf. Appendix VI). The perceptions of the work climate are assessed by items depicting the trainees' work environment including: trainees' supervisor, their peer/task, and themselves (Holton et al., 1997). The tool consists of an 89 item, psychometrically validated scale designed to collect trainee ratings (Likert-type) on characteristics of the work environment (feedback/performance coaching, supervisory support, supervisory sanction, peer support, resistance/openness to change) that influence training transfer (Cf. Appendix VI: item-factor loading). The LTQ is a particularly comprehensive instrument as it is also designed to assess the influence of trainee characteristics (learner readiness, performance self-efficacy); motivation characteristics (motivation to transfer learning, transfer effort, performance-outcome expectation); and ability (opportunity to use learning, personal capacity to transfer, perceived content validity, transfer design) on perceived training transfer (Cf. Appendix VI: LTQ Scale definitions & descriptions).

The LTQ is based on the assumption that work groups' beliefs about the organisation (supervisory support and sanction), group members' social roles (peer support and sanction), and members' beliefs about themselves combine to influence the extent to which training is accepted and transferred (Holton et al., 1997, 1998). Reliability estimated by Cronbach's alpha ranged from .68 to .95 (with an average alpha of .79) supporting the use of the instrument for the present study.

As the LTQ does not assess the characteristics of the training to any great depth, the present investigation included additional questions regarding the value, relevance, and design of training (Cf. Appendix III, Questionnaire 2). It was decided that the LTQ would be administered only once as a cross-sectional instrument. As a questionnaire was originally written for trainer facilitated programs in North America, a slight modification was made for a *self-administered training program* in a New Zealand context. Verb tenses had to be altered for a few questions to allow for the time of

instrument delivery. Specific items that were reworded include item 3, 53, 54, 55, and 56 (Cf. Appendix III, Questionnaire 3: LTQ). An effort was made to minimise modifications of the scale in order to preserve the semantic qualities and psychometric properties of Holton's (1998) original LTQ II scale.

Because the characteristics of the transfer environment were measured only once (at four weeks post training) it became necessary to include questions regarding the stability of the transfer environment. This was particularly pertinent given that the fourth Questionnaire was administered a further four weeks after the LTQ (10 weeks after questionnaire 1). Work environment stability questions were included as part of the interviews conducted with the ANZ banks HR manager, training designer, and facilitator. (Cf. Appendix V: interview questions). The intention was to improve internal validity by controlling for changes in work environment between pre- and post-testing (Brook, 1997; Brook & Collinson, 1997a, 1997b, 1997c).

Part Two

Open-ended Questionnaire for Supervisory support Research

As in McSherry's (1992) & Facteau et al's (1995) research, trainees were provided with a single open-ended question designed to provoke comment on trainees' perceptions of their supervisors' post-training support behaviour during administration of the final treatment questionnaire (i.e. Questionnaire 4). The aim of this question was to obtain a comprehensive list of supervisory support behaviours to supplement the global perspective taken by the LTQ on supervisory support. Specific supervisory support behaviours could be identified within the work environment that influenced transfer. To avoid the 'leading question', trainees were asked in a non-directive way to indicate the '*role their supervisor assumed since their (trainees') participation in training*'. The implication that the supervisor had done anything differently since the trainees' participation in training was thereby avoided.

Part Three

Open-ended Questionnaire for Peer Support

Another single open-ended question was asked to allow insight into trainees' perceptions of their peer's post-training support behaviour. The aim of this question was

to obtain a comprehensive list of peer support behaviours from trainees. To avoid the 'leading question' trainees were asked in a non-directive way to indicate the *role their peers assumed since their return from training.* There was no suggestion that the trainee's peers had done anything differently since the trainees' return to work. This question was included after the self-rating questions in Questionnaire 4.

Background Questionnaires

Background Questionnaire for Participants

A background questionnaire (Cf. Appendix III & IV, Questionnaire 2) was used to collect data on relevant demographics, job category, and pre-training trainee and control group perception of the training (Lieberman, 1956; cited in Cook & Campbell, 1976). It became necessary to gather such information as a literature review of training transfer (Baldwin & Ford, 1988) frequently referred to the confounding effects of factors such as those measured by the background items. This information seemed pertinent for gaining an insight into the characteristics of members within the control and treatment groups. Initially this information was used to establish equivalence/non-equivalence between the treatment and control groups. Later, the data was used to test hypothesis and find explanations.

Background Interview for HR Manager, Training Designer & Facilitator

In an attempt to counteract some of the methodological shortcomings noted by the major reviews of organisational training and evaluation (Campbell, 1971; Campbell, Dunnette, Lawler, & Weick, 1970; Goldstein, 1980; Wexley, 1984) a thorough background review of the training was conducted (Cf. Appendix V: Interview Questions). More recently, Quinones & Ehrenstein (1997) alluded to the necessity of the researcher to identify and review the organisational goals, level of needs analysis, mode of delivery, level of evaluation, training & development policies, managerial commitment, and expected outcomes from training. An assessment of these training design characteristics was motivated by the need to determine the value, quality, and characteristics of the training intervention prior to any evaluation type research. It has being noted in the literature that these aspects of the training can often indicate why training has failed to transfer despite the presence of ideal trainees, facilitation, or work environments (Holton et al., 1997; Wexley & Latham, 1981; Baldwin & Ford, 1988;

Noe, 1986; Axtell et al., 1996; & Mathieu et al., 1992). More specifically, the background interviews allowed the researcher to take into consideration some of the most salient factors (confounding variables) that impinge on the success or otherwise of training. Goldstein (1993, p. 37) captured it best when he stated, '*Many programs are doomed to failure because trainers are more interested in conducting training programs than in assessing the needs of the organisation.*' Hence, the present background interviews were aimed at the HR manager, training designer, and facilitators in an attempt to discover the rationale, motives, and depth of preparation that went into the design and delivery of training. The interview questions are based on a literature review of authors previously stated. During interpretation, this information helped with explanations of research findings and conclusions.

Sampling Procedure

Source & Selection of Sample

In order to obtain a suitable, organisationally based training sample a company list was obtained from the New Zealand Ministry of Commerce Business & Registration. In view of a criterion determined by the researcher, a list of 72 organisations was selected for invitation to participate in an investigation of training transfer. Organisations were chosen on the basis that they were private sector publicly registered share floated companies; known to conduct in-house training programs aimed at employee development; and of reasonable size to support a large training intervention suitable for a quantitative investigation. Selected organisations were sent an invitation (Cf. Appendix I) to participate in an investigation of training transfer from an in-house training intervention. The invitation outlined the interest area of the researcher, the objectives of the study, the benefits to the participant organisation, the benefits to theory and understanding of training transfer, and the research requirements. Of the invited companies, only three provided adequate replies that were worth following up. From this group, the ANZ Banking Group most closely matched the aforementioned research criteria. Meetings were held with ANZ Bank's HR manager to discuss the research agenda, returns and mutual expectations.

The Organisation

The ANZ Banking Group occupies a role as a private sector organisation, which as part

of its activities, operates a trading bank. In order to remain competitive in the New Zealand market, ANZ has made a major commitment to incumbent training and re-training. Given the trend towards a sale-oriented environment, ANZ has undertaken to equip its staff with necessary skills and attitudes in order that they can operate effectively in performing their jobs. This move has being reflected in the initiation of training interventions aimed at developing sales skills. One example, is the 'Sales Accreditation Framework' (in-house designed and delivered), which comprises a 13 module training package intended for all front-line staff. The framework takes trainees through a self-learning course (some workshops) aimed at facilitating the development of customer services skills that lead into sales techniques. The present investigation undertook to investigate one training course, 'Managing Customer Complaints' from the 'Sales Accreditation Framework.' The selection of this program was a matter of practicality in terms of research constraints and the availability of a sample prior to undertaking training.

Criterion for inclusion of participants

In order to facilitate adherence to the data collection schedule, steps were taken to sample trainees who indicated a desire to participate in the investigation prior to the time for the training. This was achieved by distributing a memorandum around the branches several weeks before training and the data collection. The memorandum outlined the nature of the investigation, aims, benefits to trainees and their organisation, and a brief explanation of the study requirements and participant rights. To help promote interest, the HR manager from the organisation attached an endorsement to the memorandum. Interested trainees were then invited to read an information sheet and sign a consent form. On the basis of material in the information sheet and the responses to the background measure, a final list of treatment and control group members was compiled. Selected groups had to regard the Sales Accreditation Framework as a worthwhile training course. If so, it could be assumed that trainees and control group members would possess reasonable and similar levels of motivation to complete the training and research questionnaires. Treatment group members also had to agree, in advance, to complete the 'Managing Customer Complaints' module within two weeks of receiving their learning packages in order that post-testing of all groups could be completed simultaneously. Finally, groups had to agree to completing all parts of the pre- and post-test at the designated times.

Survey Procedure

Phase One

The first phase of data collection, occurred two weeks prior to training (Cf. administration schedule, Chapter 6, Section 2, Figure 6.1). All participants (control and treatment groups) were invited to read the information sheet, complete the consent form, background questionnaire (Questionnaire 2), and perceived transfer of training questionnaire (PTQ, Questionnaire 1) (Cf. Appendix III & IV). During each phase of data collection, respondents, who had been assigned individual identification codes, were asked to mark each questionnaire with their personalised coding for later matching by the researcher. The coding system was adopted to ensure anonymity and confidentiality to participants' vis-a-vis their organisation.

Phase Two

Four weeks after the completion of training all consented respondents were asked to complete the learning transfer questionnaire (LTQ, Questionnaire 3).

Phase Three

Eight weeks after training, participants were required to complete the perceived transfer of training questionnaire (PTQ, Questionnaire 4) (both treatment & control), open-ended questionnaires for peer & supervisory support, and answer the open-ended question for transfer of training (treatment group only). To increase adherence and honest responses both the completed pre-test and post-test surveys were mailed directly back to the researcher, by-passing the organisation. This step was undertaken because of the potential sensitive nature of items in the questionnaires that respondents could interpret as threatening to their work positions.

Chapter Seven
Analysis & Results

Introduction

The purpose of this chapter is to present the findings of the empirical investigation. Results are presented together with a statement of the statistical analysis option chosen. The sequence of statistical tests follow, with some necessary modification, the logic of research questions, and hypotheses (Cf. Chapter 6). Quantitative data obtained by measures of four instruments: a repeat-administration instrument (PTQ: Questionnaire 1 & 4); one single administration questionnaire for general input characteristics datum (Background Questionnaire: Q.2.); and one single administration questionnaire for the 'intervening conditions' of training transfer (LTQ: Questionnaire 3).

Questionnaire 4 contained identical items to questionnaire 1, but in a different random order. In analyzing data, the change in self-rating from questionnaire 1 to 4 was used as an indicator of improvement or decline, from which the level of self-rated training transfer could be inferred.

Questionnaire 3, which was administered four weeks after training to all treatment groups, assessed dimensions (intervening conditions) mediating the level of training transfer (Holton et al., 1997). For a full description of 'intervening conditions' refer to Chapter 5. In data analysis, these intervening factors were regarded as forming the basis of predictive variables of training transfer.

In this chapter, procedures for data editing, index generation, and data analysis are described and illustrated. The chapter has been divided into four sections. Section 1 describes the process of data preparation, the derivation of composite variables, and other transformations. Section 2 presents the psychometric properties of derived scales and a description of the sample. Section 3 presents explains the main findings and statistical methods used to test hypotheses in this investigation, and Section 4 a brief on findings from qualitative data.

Data Analysis

Quantitative data were analysed using SPSS 8 for Windows. Data collected with the four instruments were entered first as primary variables corresponding to individual items in the questionnaires. These variables were subsequently labeled and re-defined in order to facilitate analysis. The necessary transformation and generation of composite indicators was needed for hypothesis testing. Inferential statistical tests used included bivariate Pearson's correlations, Cronbach's test for internal consistency, Paired and Independent samples t-tests, two-way between samples ANOVA, and Multiple Regression.

Section One

Preparation of Data

Missing Data

The relatively small sample size (N = 121) meant that options for managing missing values had to be cautiously chosen to prevent the lose of cases, while avoiding biases due to editing data (Hair, Anderson, Tatham, & Black, 1998). An initial diagnostic screening of scale-item responses revealed that there were few instances of missing values (i.e. < 2%) in the data set. These occurrences were not unexpected given that participants were notified of their right to abstain from responding to items according to the ethical standards of the investigation. Following this initial screening, data was manually screened a second time to examine the pattern of missing data. This search assisted in choosing the analytical option for keeping cases with some missing data in the analysis (Hair et al., 1998; Tabachnick & Fidell, 1989). The concern was the randomness versus regularity in the pattern of the missing data. As missing data points were scattered randomly throughout the data set, there were no patterns of missing values localized to specific groups and sub-samples. In other words, the missing values in this set could be categorized as *missing completely at random* (MCAR) with observed values constituting a random sample of all values (Hair et al., 1998).

Imputation of the series mean was selected as the most appropriate strategy for dealing with missing values (Hair et al., 1998). Specifically, cases with missing values were located and the mean of all values of the variable item substituted (Coakes & Steed,

1998; Hair et al., 1998). Replacement by mean was justified because the mean was the best estimate for sporadic item-level data points missed by respondent (Hair et al., 1998). However, the method may underestimate true variance, may distort distribution, and can depress observed correlations (Hair et al., 1998; Gravetter & Wallnau, 1992). The latter concerns are minimized when the occurrences of missing values are infrequent and isolated, as in this data set.

Item Reversal

A simple transformation required for the item-level variables was reversal of polarity. The questions used in this study had been designed to assess multiple psychological dimensions. The dimensions correspond to factors defined by subsets of items. When using the instrument in a different culture, with new population samples, there is no guarantee that item-level responses will display the same patterns as on the original sample(s). Consequently, there are dangers in replicating index generation by means of the 'recipes' documented in the literature, as item-item correlations and factor structures may not replicate the earlier pattern.

An elementary issue affecting index generation is the positive or negative correlations of item variables within a sub-set supposedly measuring one construct. With items such as the Likert-scale on the LTQ, cumulative index generation may fail as some items have 'opposite polarity' (i.e. a problem well known in generation of E, P, and A indices from the Osgood Semantic Differential).

Before the index generation, Pearson correlation's were calculated to assess the degree and sign (polarity) of item-item relationships, items that presented recurrent negative association with other items in a sub-scale were noted as potential candidates for re-coding. Before re-coding, the semantic qualities of sub-scale item questions were compared and contrasted to identify oppositely worded items. Sub-scale items found to fit the reversal criteria were re-coded such that response options (scale points) were systematically reversed. Scale variables with sub-scale items requiring reversal on the LTQ included: *Personal Capacity for Transfer*, items 20, 26, and 27; *Resistance/Openness to Change*, items 75, and 78; *Opportunity to Use New Learning*, items 61, and 63; and *Performance – Outcomes Expectations*, item 64 (Cf. Appendix VI: Scale definition).

Index Generation

More complex variable transformations were required to generate those indices (both for the independent and for dependent variables) based on several primary variables (items) each. Eleven composite indices were generated based on perceived transfer items from Questionnaire 1 and 4. Nine single-item indices from the demographic and background questionnaire (Questionnaire 2) were generated. A further 16 indices were derived from Holton et al's (1997) Learning Transfer Questionnaire (LTQ), Questionnaire 3. Composite indicators were constructed according to their respective scale definitions as outlined in Appendix VII and VI. An advantage of working with high-level composite indices is that they are more suitable for 'parametric' statistical procedures (Gravetter & Wallnau, 1992).

A further derivation yielded indices representing the degree of change between time 1 and 2 (pre-testing and post-testing respectively) on 14 factors of PTT. The change in participants' scores over time on these scales was used (as mentioned) as an indicator of performance improvement or decline on the effective use of the learnt skills back in the job (i.e. perceived transfer of training). These performance scores, which numbered 14, were calculated using the transform option on SPSS 8, whereby PTQ1 factor (time 1) scores were subtracted from PTQ2 (time 2) scores to produce a change score. The direction of subtraction of PTQ2 from PTQ1 was based on the assumption that there would be an improvement in PTQ2 scores after participating in training, producing a positive change score. The 14 'change scores' were used latter for inter-group comparisons (i.e. treatment versus control group), ANOVA and Multiple Regression. Although, change scores were transformed further (discussed later) to facilitate ANOVA and the Regression analysis.

Normality of Distribution

Following index generation normality was assessed for each composite index. Variables were screened by inspecting Univariate descriptive statistics (histograms. boxplots, normal probability plots). In addition, Kolmogorov-Smirnov, Skewness, and kurtosis statistics were produced to check the shape of distributions and guide the subsequent transformations described in this section. Because of the large amount of output, no tabular data is available in this report, although some indices were positively or negatively skewed. In more extreme cases, these variables were transformed to create a

more normal distribution. For instance, six variables from the LTQ required transformations. These included *personal outcomes – positive* with a positive skew, corrected with a square root transformation. *Supervisory/Manager Sanction* had severe positive skewness, remedied with a natural logarithmic transformation. *Peer Support* with moderate negative skewness was amended by a square root transformation. *Supervisory/Manager Support* and *Feedback/Performance Coaching* needed logarithmic transformations (Tabachnick & Fidell, 1989). Within the dependent variables from the *Perceived Transfer of Training Questionnaire* (PTQ; both time 1, and 2 data) variables were more normally distributed, with only a few requiring transformations.

Composite indices were screened for outliers by producing Z scores to detect cases in excess of +/- 3 (sigma) (Tabachnick & Fidell, 1989). Four outliers emerged from both the LTQ and PTQ 1 and 2 variables. These cases were checked for incorrect data entry. As cases appeared to be entered correctly into the data set, outlying values were deleted and replaced with the series mean imputation method (Tabachnick & Fidell, 1989; Hair et al., 1998).

Section Two

Psychometric Properties of Scales

The psychometric properties of 10 x 2 dependent (PTQ; time 1 and time 2), and 16 independent multi-item indices (LTQ), were assessed with a test of between sub-scale item internal consistency estimates. Of interest was the 'goodness-of-fit' between sub-scale items, which formed the respective dependent and independent factors. Subsequently, Cronbach's alpha reliability coefficients were calculated for each of the multi-item dependent and independent variables. Variables that presented with coefficients over 0.6 were regarded as sufficient reliable indicators of their respective measured phenomenon (Tabachnick & Fidell, 1989). Variables with alpha below 0.6 were examined in terms of the individual item contribution. Items that yielded the highest 'alpha if item deleted' were successively excluded until a reliability alpha of 0.6 was achieved. Fortunately, no variables within either the independent or the dependent scales fell below an alpha of 0.6, with the result that no sub-scale item had to be excluded. Table 7.1 illustrates Cronbach's alphas and standards inter-item (factor) alpha for the dependent factors (PTQ), including reliability alpha at times 1 (PTQ1), and times 2 (PTQ2). Also

available in table 7.2 are the Cronbach's alpha's and standardized alpha for the 16 variables LTQ. In reference to table 7.1, one can observe that Cronbach's alpha for the dependent variables of the PTQ ranged in value from 0.62 to 0.81 at time 1. At time 2, Cronbach's alpha ranged in value from 0.62 to 0.76 for the PTQ. A comparison between the respective factors of the PTQ at times 1 and 2 revealed that six of the ten factors had Cronbach's alpha within 0.03 of each other. Specifically, factors within this category indicate that the PTQ has good test-retest reliability.

The reliability for 16 independent factors of the LTQ ranged in values from 0.60 to 0.82. On comparison with the reliability of the alpha in Holton et al (1997) LTQ, the present alpha were consistent in terms of variables with the highest to lowest alpha coefficient (e.g. supervisory support achieved a comparatively high alpha in both Holton's and this study), but differed in that present alpha were a magnitude of 0.08 to 0.05 lower than those reported in Holton et al's (1997) study.

	Perceived Transfer of Training Scale (PTQ)			
	PTQ1 (time 1)		PTQ2 (time 2)	
Factor	***Alpha***	***Standardized Alpha***	***Alpha***	***Standardized Alpha***
1.1	0.68	0.69	0.65	0.65
1.3	0.75	0.75	0.67	0.68
2.1	0.81	0.82	0.68	0.68
2.2	0.64	0.64	0.64	0.65
3.1	0.62	0.63	0.62	0.62
3.2	-	-	-	-
4.1	0.76	0.75	0.64	0.65
5.1	0.62	0.63	0.62	0.62
5.2	0.64	0.64	0.67	0.66
6.1	-	-	-	-
7.1	0.72	0.72	0.71	0.71
7.2	0.80	0.80	0.76	0.76
7.3	-	-	-	-
7.4	-	-	-	-

Table 7.1: Cronbach's Alpha Coefficient for Factors from the PTQ

Legend:
1.1 Manages complaint to maintain customer
1.2 Recognizes signs of a customer complaint
2.1 Dynamics of a conflict situation
2.2 Actively listens in a conflict situation
3.1 Plans for interviewing a difficult customer
3.2 Moves customer complaint into a sales opportunity
4.1 Responds appropriately to four common Bank complaints
5.1 Recognizes bad customer behaviour intended to influence

5.2 Labels bad customer behaviour and responds appropriately
6.1 Recognizes non-verbal communication during complaint
7.1 Practices ANZ Banks policy regarding customer complaints
7.2 Correctly ID's need to refer complaint to a higher authority
7.3 Recognizes need for National Manager of customer relations
7.4 Responds appropriately to enquires regarding the Banking ombudsman

	Learning Transfer Scale (LTQ)	
Factor	***Alpha***	***Standardized Alpha***
	Trainee Characteristics Scales	
Learner Readiness	0.72	0.72
Performance Self-Efficacy	0.73	0.73
	Motivation Scales	
Motivation to Transfer Learning	0.63	0.65
Transfer Effort – Performance Expectations	0.66	0.66
Performance – Outcomes Expectations	0.83	0.83
	Work Environment Scales	
Feedback/Performance Coaching	0.67	0.67
Supervisor/Manager Support	0.79	0.79
Supervisor/manager Sanction	0.60	0.62
Peer Support	0.66	0.65
Resistance/Openness to Change	0.65	0.66
Personal Outcomes – Positive	0.60	0.61
Personal Outcomes - Negative	0.67	0.68
	Ability Scales	
Opportunity to use Learning	0.67	0.67
Personal Capacity for Transfer	0.68	0.70
Perceived Content Validity	0.74	0.74
Transfer Design	0.62	0.62

Table 7.2: Cronbach's Alpha Coefficient for factors from the LTQ

Sample Descriptive

As with many contemporary projects in New Zealand organisation, the executed sample differed from the planned sample and the sample contact. Eighty-eight treatment and 33 control group members responded to all four Questionnaires (a response rate of approx. 27%). Of those who replied over half were women ($N = 79$), making up 65.3% of the total sample, with men ($N = 42$) composing 34.7% of the sample. For a summary of total sample demographic features, including the age, gender, and ethnicity refer to tables 7.3 to 7.6.

	Quasi-Experiential Groups		
	Frequency	Percent	Cumulative Percentage
Treatment	88	72.7	72.7
Control	33	27.3	100.0
Total	121	100.0	

Table 7.3: Descriptive for Group Condition

	Age (Treatment & Control Groups)		
	Frequency	Percent	Cumulative Percentage
20 - 25	12	9.9	9.9
26 - 30	23	19.0	28.9
31 - 35	21	17.4	46.3
36 - 40	30	24.8	71.1
41 - 45	16	13.2	84.3
46 - 50	15	12.4	96.7
51 - 55	3	2.5	99.2
56 - 60	1	.8	100.0
Total	121	100.0	

Table 7.4: Age Descriptive for Sample

	Gender (Treatment & Control Groups)		
	Frequency	Percent	Cumulative Percentage
Female	79	65.3	65.3
Male	42	34.7	100.0
Total	121	100.0	

Table 7.5: Gender Descriptive for Sample

	Ethnicity (Treatment & Control Groups)		
	Frequency	Percent	Cumulative Percentage
Pakeha	77	63.6	63.6
Maori	26	21.6	85.1
Polynesian	4	3.3	88.4
Asian	10	8.3	96.7
Other	4	3.3	100.0
Total	121	100.0	

Table 7.6: Ethnicity Descriptive for Sample

Descriptive for Treatment Groups

The value in evaluating and comparing demographic data for the treatment and control groups independently lies in the ability to assess the relative similarity or otherwise of the treatment groups. In the present investigation, treatment groups were relatively similar in distribution of gender, age, and ethnicity. This adds to the argument that treatment and control groups were equivalent and therefore drawn from the same population. Although not available from the organisation, statistics on the population characteristics for all employees within the bank could have been used comparatively against the present sample to strengthen the assumption underlying the generalisation of findings.

Tables 7.7 to 7.9 present the frequencies, percentages, and cumulative percentages for the treatment group age, gender, and ethnic composition.

	Age (Treatment Group)		
	Frequency	Percent	Cumulative Percentage
20 - 25	9	10.2	10.2
26 - 30	20	22.7	33.0
31 - 35	14	15.9	48.9
36 - 40	22	25.0	73.9
41 - 45	11	12.5	86.4
46 - 50	10	11.4	97.7
51 - 55	2	2.3	100.0
Total	88	100.0	

Table 7.7: Age Descriptive for Treatment Group

	Gender (Treatment Group)		
	Frequency	Percent	Cumulative Percentage
Female	57	64.8	64.8
Male	31	35.2	100.0
Total	88	100.0	

Table 7.8: Gender Descriptive for Treatment Group

	Ethnicity (Treatment Group)		
	Frequency	Percent	Cumulative Percentage
Pakeha	56	63.6	63.6
Maori	20	22.7	86.4
Polynesian	3	3.4	89.8
Asian	7	8.0	97.7
Other	2	2.3	100.0
Total	88	100.0	

Table 7.9: Ethnicity Descriptive for Treatment Group

Tables 7.10 to 7.12 present the frequencies, percentages, and cumulative percentages for the control group members' age, gender, and ethnic composition.

	Age (Control Group)		
	Frequency	Percent	Cumulative Percentage
20 - 25	3	9.1	9.1
26 - 30	3	9.1	18.2
31 - 35	7	21.2	39.4
36 - 40	8	24.2	63.6
41 - 45	5	15.2	78.8
46 - 50	5	15.2	93.9
51 - 55	1	3.0	97.0
56 - 60	1	3.0	100.0
Total	33	100.0	

Table 7.10: Age Descriptive for Control Group

	Gender (Control Group)		
	Frequency	Percent	Cumulative Percentage
Female	22	66.7	66.7
Male	11	33.3	100.0
Total	33	100.0	

Table 7.11: Gender Descriptive for Control Group

	Ethnicity (Control Group)		
	Frequency	Percent	Cumulative Percentage
Pakeha	21	63.6	63.6
Maori	6	18.2	81.8
Polynesian	1	3.0	84.8
Asian	3	9.1	93.9
Other	2	6.1	100.0
Total	33	100.0	

Table 7.12: Ethnicity Descriptive for Control Group

Section Three

Intra-Group Comparisons

As an initial step toward fulfilling the primary aim of the investigation (Cf. Chapter 6), steps were taken to determine whether the training had resulted in skill and attitudinal changes (for managing customer complaints) for those who had participated in training. In order to accredit training with changes in work practices, control group data was examined to see whether there was any change in skills and attitudes for managing customer complaints. Given the re-assessment after the intervention (pre- and post-test) used in this study, separate inferential tests were an initial preparatory option to establish whether there was any significant differences in PTT between the two waves (time 1 and 2) of data collection. One-tailed paired t-tests were conducted separately on treatment and control groups to answer the question: *Do ratings on the perceived transfer of training scale significantly improve after participating in the managing customer complaints training?* The aim here was to establish whether there was a significant within group effect across time 1 and 2 administration of the PTT.

Hypothesis tested

In accordance with the hypothesis outlined in Chapter 6 it was predicted that: -

- *Skills and attitudes will be perceived to be transferred from training (Managing Customer Complaints Training module) into the work setting for all groups participating in training (i.e. treatment group).*

Given that populations were normally distributed and exceeded a minimum of 30 participants, violations of normality in population different scores were of little concern (Coakes & Steed, 1999).

To establish the validity of the hypothesis a series of 1-tailed paired t-tests were conducted on the treatment group data for the fourteen pre- and post-test factors which made up the perceived transfer of training scale. Table 7.13 summarises the results of the paired sample t-test at $p = .01$, with $df = 87$. The paired t-tests revealed that there was strong evidence of a significant difference between 13 of the 14 time 1 and time 2 factors from the perceived transfer of training scale for the treatment group. However, the results

indicated that one factor, '*Recognizes Non-Verbal Communication*' at time 2 (m = 3.99, SD = .85) showed only some evidence of a significant difference from '*Recognizes Non-Verbal Communication*' at time 1 (m = 3.68, SD = .89), t (87) = -2.28, p = 0.05. Despite this, the null hypothesis was rejected in favour of the alternative hypothesis that '*skills and attitudes will be perceived to be transferred from training (Managing Customer Complaints training module) into the work setting for all groups participating in training (i.e. treatment group).*'

Factors (*df = 87)	***Paired Samples t-test (treatment Group)***			
	Paired Differences		99% Confidence Interval	
	Mean	Std. Dev.	t	Sig. (1-tailed)
Manage to maintain customer (T1) & Manage to maintain customer (T2) (1.1)	3.29 3.61	.61 .51	-4.24	.00
Recognizes signs of customer complaints (T1) & Recognizes signs of customer complaints (T2) (1.3)	3.45 4.21	.75 .73	-7.12	.00
Dynamics of conflict situation (T1) & Dynamics of conflict situation (T2) (2.1)	3.02 3.84	.75 .55	-8.52	.00
Actively listens in conflict situation (T1) & Actively listens in conflict situation (T2) (2.2)	4.19 3.53	.50 .48	9.90	.00
Plan for interviewing difficult customer (T1) & plan for interviewing difficult customer (T2) (3.1)	3.50 4.07	.51 .40	-8.49	.00
Moves complaint into sales opportunity (T1) & Moves complaint into sales opportunity (T2) (3.2)	2.86 3.42	1.15 .93	-4.35	.00
Response to 4 common complaints (T1) & Response to 4 common complaints (T2) (4.1)	3.12 3.85	.69 .48	-8.84	.00
Recognizes behaviour intended to influence (T1) & Recognizes behaviour intended to influence (T2) (5.1)	3.00 3.82	.66 .58	-10.80	.00
Labels customer behaviour and responds (T1) & Labels customer behaviour and responds (T2) (5.2)	2.74 3.88	.73 .50	-12.41	.00
Recognizes non-verbal communication (T1) & Recognizes non-verbal communication (T2) (6.1)	3.68 3.99	.89 .86	-2.28	.03
Practices ANZ Banks customer complaints policy (T1) & Practices ANZ Banks customer complaints policy (T2) (7.1)	2.89 4.05	.87 .67	-10.57	.00
ID need to refer complaint to higher authority (T1) & ID need to refer complaint to higher authority (T2) (7.2)	3.34 4.22	.88 .610	-8.28	.00

Recognizes need for National Manager customer relations (T1) & Recognizes need for National Manager customer relations (T2) (7.3)	3.19 3.76	.97 .76	-5.44	.00
Appropriate response to enquires regarding Bank ombudsman (T1) & Appropriate response to enquires regarding Bank ombudsman (T2) (7.4)	2.86 3.86	1.18 .94	-6.79	.00

Table 7.13: Paired t-tests for treatment group (Trained) (time 1 & time 2) Perceived Transfer of Training.

Hypothesis tested

In accordance with the hypothesis outlined in Chapter 6 it was hypothesised that: -

- *Those not participating in training (i.e. control group) will perceive no significant change in their skills and attitudes to managing customer complaints in the work setting.*

In order to establish whether training could be attributed with the changes in time 1 and 2 perceived transfer of training for the treatment group; paired samples t-tests were conducted to compare time 1 and 2 perceived transfer of training data from the control group. The results of that analysis are presented in table 7.14 at $p = 0.05$, with $df = 32$. All but two of the paired t-tests were non-significant at $p = 0.05$, with $df = 32$.

Exceptions are variables 'actively listens in conflict situation' and 'recognizes need for National Manager customer relations.' Results indicate that for '*actively listens in a conflict situation*,' time 2 (m = 3.69, SD = .52) significantly differed from time 1 (m = 3.81, SD = .44), t (32) = 2.46, $p = 0.01$. *'Recognizes need for National Manager customer relations'* produced a more marked significant difference pointing to a decrease over time t (32) = -3.54, $p = 0.01$. With the exception of these two factors, the results appear to support the hypothesis that, 'those not participating in training (i.e. control group) perceived no significant change in the skills, knowledge, abilities, and attitudes for managing customer complaints in the work setting.'

Factors (*df = 32)	***Paired Samples t-test (Control Group)***			
	Paired Differences		95% Confidence Interval	
	Mean	Std. Dev.	T	Sig. (1-tailed)
Manage to maintain customer (T1) & Manage to maintain customer (T2) (1.1)	3.25	.57	1.19	.24

	3.20	.55		
Recognizes signs of customer complaints (T1) & Recognizes signs of customer complaints (T2) (1.3)	3.70 3.56	.65 .56	1.43	.16
Dynamics of conflict situation (T1) & Dynamics of conflict situation (T2) (2.1)	3.05 3.11	.57 .47	-.90	.37
Actively listens in conflict situation (T1) & Actively listens in conflict situation (T2) (2.2)	3.81 3.69	.44 .52	2.47	.02
Plan for interviewing difficult customer (T1) & plan for interviewing difficult customer (T2) (3.1)	3.55 3.60	.42 .35	-1.29	.21
Moves complaint into sales opportunity (T1) & Moves complaint into sales opportunity (T2) (3.2)	2.82 2.73	1.07 1.04	1.00	.33
Response to 4 common complaints (T1) & Response to 4 common complaints (T2) (4.1)	3.45 3.45	.45 .44	.14	.89
Recognizes behaviour intended to influence (T1) & Recognizes behaviour intended to influence (T2) (5.1)	3.35 3.35	.60 .50	.00	1.00
Labels customer behaviour and responds (T1) & Labels customer behaviour and responds (T2) (5.2)	2.91 2.95	.53 .55	-.80	.43
Recognizes non-verbal communication (T1) & Recognizes non-verbal communication (T2) (6.1)	3.55 3.52	.90 .94	.24	.81
Practices ANZ Banks customer complaints policy (T1) & Practices ANZ Banks customer complaints policy (T2) (7.1)	2.98 2.30	.61 .62	-.17	.87
ID need to refer complaint to higher authority (T1) & ID need to refer complaint to higher authority (T2) (7.2)	3.64 3.63	.61 .62	.16	.88
Recognizes need for National Manager customer relations (T1) & Recognizes need for National Manager customer relations (T2) (7.3)	2.67 3.00	.96 .94	-3.55	.00
Appropriate response to enquires regarding Bank ombudsman (T1) & Appropriate response to enquires regarding Bank ombudsman (T2) (7.4)	2.55 2.61	1.12 1.22	-.53	.60

Table 7.14: Paired t-tests for Control group (non-training) (time 1 & time 2) Perceived Transfer of Training.

A Caution with Results

This set of findings is presented as provisional (not definitive) (as are those for all t-tests), and thus only lending orientation rather than full corroboration. Caveats against serial inter-group comparisons (such as t-tests for a series of criterion variables, performed on the same two groups of cases) are well documented in introductory statistics. Apart from fluctuations in significance levels associated with particular *t* values, there is a possibility that the result of one or more in each 14 t-tests calculated may be miss-leading, as a high *t* value is due to random error. Moreover, the different criteria variables may be interrelated, yielding a spuriously high number (inflated) of significant inter-group differences. Although, results from the higher-order (holistic comparisons) independent sample t-tests can be taken as more definitive because they reduce the likelihood of random error in *t* values that exaggerate significance.

Inter-Group Comparisons

Independent Samples t-tests were conducted to evaluate whether the treatment and control groups differed in perceived training transfer using the fourteen PTT variables. The use of the independent samples t-test was appropriate given that each subject appeared only once in unrelated groups (Coakes & Steed, 1998; Green & D'Oliveira, 1999). The data was screened for normality with Levene's tests for equivalence of variance which showed that the samples had relatively equivalent variance, although this becomes of little concern for sample which exceeded the minimum of 30+ participants (Coakes & Steed, 1998). However, the cautions mentioned concerning serial comparisons apply to the following comparisons also.

Hypothesis Tested

- *It is hypothesised that there will be no significant difference between the treatment and control groups' perceptions of training transfer before training.*

Overall, the results (Table 7.15) of the independent groups t-test illustrates that the treatment and control groups were not significantly different in their perceived training transfer for 11 of the 14 dependent factors before training (time 1). Results for both before and after training effects appear in table 7.15. There was significant difference for three of 14 dependent variables. This included, the '*Response to four Common Complaints*.' The results run counter to the hypothesized relationship with the treatment groups '*Response*

to four Common Complaints' (m = 3.11, SD = 0.69) significantly differing from the control group's response (M = 3.45, SD = .45) at time 1. Another significant gap emerged between the treatment and control groups at time 1 for the dependent variable '*Recognizes Behaviour Intended to Influence.*' Again, the results counter the hypothesized effect with the treatment '*Recognizes Behaviour Intended to Influence'* (M = 3.00, SD = .66) significantly differing from the control groups '*Recognizes Behaviour Intended to Influence'* (M = 3.35, SD = .60) at time 1. Finally, there was a significant difference between the treatment and control groups at time 1 in terms of '*Recognizes the Need for the National Manager of Customer Relations.'* These results contradict the hypothesis in that the treatment group differs from the control group at time 1. Apart from the previous variables, the prediction that the treatment group would not significantly differ from the control group at time 1 was supported.

Subsequently, an overall inter-group comparison was conducted to evaluate the difference between the means of the treatment and control group in terms of their perceived level of training transfer. A single high-level dependent variables were derived (for times 1 and 2) to holistically represent the fourteen variables of the PTT. The results of this revealed that at time 1 there was no significance difference between the treatment and control group in terms of their perceived level of training transfer. At time 1, the treatment group had a $t(119) = -.65, p = .52$, with a ($M = 3.18, SD = .39$), while the control group had a $t(119) = -.79$, $p = .43$, with a ($M = 3.22$, $SD = .25$) in a two-tailed test. Independent sample t-tests supported the hypothesis that there would be no significant difference between the treatment and control groups' overall perceptions of training transfer before training (at time 1).

Hypothesis Tested

The following hypothesis was tested using the independent sample t-test: -

- *It is hypothesised that there will be a significant difference between the treatment and control groups perceptions of training transfer after training.*

The results of the independent samples t-test revealed that there was a significant difference between the treatment and control group in terms of 13 of the 14 PTT indices after (time 2) the training intervention. Results displayed in table 7.15 suggest a

significant effect of training on all but one of the dependent variables. Specifically, there was no significant difference between the treatment and control group at time 2 for '*Recognizes Non-Verbal Communication*' ($M = 3.95$, $SD = .84$) for the treatment group, and ($M = 3.52$, $SD = .94$) for the control group.

A holistic comparison to determine the overall level of difference between the treatment and control group (using a single dependent variable derived from the 14 factors) was also calculated. The results demonstrate that there was a significant difference between the treatment and control groups' perceptions of training transfer at time 2 ($M = 3.91$, $SD = .27$) for the treatment group, while the control group had ($M = 3.25$, $SD = .19$). Results support the hypothesis that treatment and control groups' differ in their perceptions of training transfer after the training intervention.

	Independent Samples t-test (Treatment & Control)				
Factors (*df = 119)		Group Differences		99% Confidence Interval	
	Exp. Group	Mean	Std. Dev.	t	Sig. (2-tailed)
Manage to maintain customer (Time 1)	*Treatment*	3.29	.61	.33	.75
	Control	3.25	.57		
Manage to maintain customer (Time 2)	*Treatment*	3.60	.51	3.78	.00
	Control	3.20	.55		
Recognizes signs of customer complaints (Time 1)	*Treatment*	3.45	.75	-1.68	.09
	Control	3.70	.65		
Recognizes signs of customer complaints (Time 2)	*Treatment*	4.20	.73	4.57	.00
	Control	3.56	.56		
Dynamics of conflict situation (Time 1)	*Treatment*	3.02	.75	-.23	.82
	Control	3.05	.57		
Dynamics of conflict situation (T2)	*Treatment*	3.84	.55	6.71	.00
	Control	3.11	.47		
Actively listens in conflict situation (T1)	*Treatment*	3.53	.49	-1.63	.106
	Control	3.69	.53		
Actively listens in conflict situation (T2)	*Treatment*	4.20	.49	4.15	.00
	Control	3.81	.44		
Plan for interviewing difficult customer (T1)	*Treatment*	3.50	.51	-.49	.63
	Control	3.55	.42		
Plan for interviewing difficult customer (T2)	*Treatment*	4.05	.40	6.10	.00
	Control	3.60	.35		
Moves complaint into sales opportunity (T1)	*Treatment*	2.86	1.15	.198	.84
	Control	2.82	1.07		

Moves complaint into sales opportunity (T2)	*Treatment*	3.38	.91	3.3	.001
	Control	2.73	1.04		
Response to 4 common complaints (T1)	*Treatment*	3.12	.69	-2.59	.01
	Control	3.45	.45		
Response to 4 common complaints (T2)	*Treatment*	3.84	.48	4.07	.00
	Control	3.45	.44		
Recognizes behaviour Intend to influence (T1)	*Treatment*	3.00	.66	-2.65	.01
	Control	3.35	.60		
Recognizes behaviour Intend to influence (T2)	*Treatment*	3.82	.58	4.45	.00
	Control	3.35	.49		
Labels customer behaviour & responds (T1)	*Treatment*	2.75	.73	-1.15	.25
	Control	2.91	.53		
Labels customer behaviour & responds (T2)	*Treatment*	3.89	.50	8.86	.00
	Control	2.95	.55		
Recognizes non-verbal communication (T1)	*Treatment*	3.68	.89	.73	.47
	Control	3.55	.90		
Recognizes non-verbal communication (T2)	*Treatment*	3.95	.84	2.36	.02
	Control	3.52	.94		
Practices ANZ Banks complaints policy (T1)	*Treatment*	2.88	.87	-.57	.57
	Control	2.98	.61		
Practices ANZ Banks complaints policy (T2)	*Treatment*	4.05	.68	7.87	.00
	Control	2.99	.62		
ID need refer complaint higher authority (T1)	*Treatment*	3.34	.88	-1.76	.08
	Control	3.64	.61		
ID need refer complaint higher authority (T2)	*Treatment*	4.20	.63	4.48	.00
	Control	3.63	.61		
Recognizes need National Manager customer relations (T1)	*Treatment*	3.19	.97	2.67	.01
	Control	2.67	.96		
Recognizes need National Manager customer relations (T2)	*Treatment*	3.75	.76	4.52	.00
	Control	3.00	.94		
Appropriate response to enquires regarding Bank ombudsman (T1)	*Treatment*	2.86	.1254	1.34	.18
	Control	2.55	.19		
Appropriate response to enquires regarding Bank ombudsman (T2)	*Treatment*	3.85	.10	5.96	.00
	Control	2.61	.213		

Table 7.15: Independent Samples t-tests for Treatment Groups (time 1 & time 2) Perceived Transfer of Training.

Influence of General Input Characteristics on Perceived Training Transfer

A test was needed to establish whether participants' general input characteristics (demographics, employment characteristics, and training beliefs) (Cf. Appendix III, Questionnaire 2) and/or the treatment condition (treatment and control group) influenced PTT. Information gathered from nine participant characteristics (from Questionnaire 2) was evaluated for their affect on PTT. Two-way between samples ANOVA was selected as each participant appeared only once in each level of the independent variables (Coakes & Steed, 1999; Green, Salkind, Akey, 1997). A series of nine two-way ANOVA were calculated to determine whether there was a significant relationship between the various sub-groups within the treatment groups and the dependent variables. Before running the ANOVA, variables were tested for normality using Shapiro-Wilks statistical test, which showed normal distributions. Following, Levene's tests for homogeneity of variance were non-significant for all variables.

Dependent Factor

For the ANOVA reported in the next nine hypotheses tested (Chapter 6, Section D) the dependent variable was the '*Change in Perceived Training Transfer.* This variable is based on temporal shift indices (change scores over time) from the 14 PTT factors. Following, the 14 indices were reduced to one factor using a factor analysis followed by a reliability test. For a full explanation of the rationale for the reduction of the 14 PTT factors to a single holistic (higher-order) index, refer to Chapter 7, pp. 157.

Independent Factors

A number of combinations of sub-groups were subjected to ANOVA to explore whether there were relationships between the participants' general input characteristics and PTT, and whether these effects were as strong as the effects of training intervention on PTT.

Job Position X Treatment Condition Effects on Perceived Training Transfer

A 3 x 2 cells two-way ANOVA was conducted to evaluate the effects of employee position (i.e. bank teller, sales officer, & other) and treatment condition group (i.e. treatment & control group) on perceived training transfer. Specifically, the following questions were asked:

- *Does job position influence perceived training transfer?*
- *Does the influence of job position on perceived training transfer depend on the treatment condition?*

Hypothesis tested

- *It is assumed that sales officers' will have more positive perceptions of training transfer from 'the Managing Customer Complaints Module' than the bank tellers.*

As anticipated from the findings in the inter-group comparisons, the ANOVA detected a significant main effect of treatment condition on PTT. A lack of a significant interaction effect suggests that there is no joint effect by job position and treatment condition on PTT. There was no significant main effect for employee position with $p > .05$. There was a significant main effect for treatment condition (treatment and control group) on PTT with $F(1, 115) = 66.37$, $p = .00$. No significant interaction effect appeared for employee position and the treatment condition $F(2, 115) = 1.37$, $p = .26$. In conclusion, neither employee position alone, or in interaction with the treatment condition, influenced PTT. However, experimental grouping did significantly influence perceived training transfer. The hypothesis was unsupported in terms that there was no significant job position effect on PTT.

Gender X Treatment Condition Effects on Perceived Training Transfer

A 2 x 2 two-way ANOVA was conducted to evaluate the effects of gender and treatment condition (treatment and control group) on perceived training transfer. The following questions were asked:

- *Does gender influence perceived training transfer?*
- *Does the influence of gender on perceived training transfer depend on the treatment condition?*

Although no direction of effect was assumed, the study set out to explore whether there was any relationship between gender and perceptions of training transfer. An examination of effects indicated that there was no significant main effect from gender. A significant main effect for the treatment condition on perceived training transfer persisted

with $F(1, 115) = 77.36$, $p = .00$. However, no significant interaction effect emerged between gender and the treatment condition with $F(1, 115) = .03$, $p = .86$. In conclusion, neither gender alone, nor in interaction with the treatment condition, influenced PTT.

Ethnic Group X Treatment Condition Effects on Perceived Training Transfer

A 5 x 2 two-way ANOVA was conducted to evaluate the effects of ethnicity and treatment condition on perceived training transfer. The following questions were asked:

- *Does ethnic group influence perceived training transfer?*
- *Does the influence of ethnic group on perceived training transfer depend on the treatment condition?*

Although no directional hypothesis is proposed, the data had potential for determining whether there was any relationship between ethnicity and perceptions of training transfer. An examination of individual effects indicated that there was no significant main effect from ethnicity, but a significant main effect for the treatment condition on perceived training transfer with $F(1, 111) = 25.76$, $p = .00$. No significant interaction effect emerged between ethnicity and the treatment condition, with $F(4, 111) = .43$, $p = .79$. In conclusion, neither ethnicity alone, nor in interaction with the treatment condition, influenced PTT.

Age Group X Treatment Condition Effects on Perceived Training Transfer

An 11 x 2 ANOVA was conducted to evaluate the effects of age (grouped into 11 age-range groups) and treatment condition on perceived training transfer. The following questions were asked:

- *Does age group influence perceived training transfer?*
- *Does the influence of age group on perceived training transfer depend on the treatment condition?*

Although no directional hypothesis of effect was posited, ANOVA was calculated to determine whether there was any relationship between age and perceptions of training transfer. ANOVA results revealed no significant main effect for participant age, but a significant main effect for the treatment condition on PTT was again confirmed with $F(1,$

106) = 44.36, p = .00. There was no significant interaction effect between participants' age and the treatment condition, with $F(6, 106) = .92$, $p = .49$. In conclusion, neither participant's age alone, nor in interaction with the treatment condition, influenced perceived training transfer.

Time in Organisation X Treatment Condition Effects on Perceived Training Transfer

An 8 x 2 ANOVA was conducted to evaluate the effects of time in the organisation (grouped into 8 time-range groupings) and treatment condition on perceived training transfer. The following questions were asked:

- *Does time in organisation influence perceived training transfer?*
- *Does the influence of time in organisation on perceived training transfer depend on the treatment condition?*

Hypothesis Tested

- *It was hypothesised that those newer to the organisation would perceive greater training transfer.*

An examination of individual effects in the ANOVA indicated that there was no significant main effect for time spent in the organisation. A significant main effect was found for treatment condition as an independent variable, $F(1, 105) = 53.93$, $p = .00$. However, no significant interaction effect emerged between time in the organisation and the experimental groups, with $F(7, 105) = .50$, $p = .83$. In conclusion, neither time in the organisation alone, nor in interaction with the experimental group, influenced perceived training transfer. The hypothesis was unsupported such that time spent in the organisation before training did not affect perceptions of training transfer. Given sample size and the divisions of time in the organisation into eight groups, results should be regarded with some caution due to the dangers of exaggerated significance with multiple comparisons.

Time in Job Position X Treatment Condition Effects on Perceived Training Transfer

An 8 x 2 ANOVA was conducted to evaluate the effects of time in a job position (grouped into 8 time-range groupings) and experimental group on perceived training transfer. The following questions were asked:

- *Does time in a job position influence perceived training transfer?*
- *Does the influence of time in a job position on perceived training transfer depend on the treatment condition?*

Although no direction of relationship was assumed, there was an opportunity to explore whether there was any link between time spent in a job position and perceptions of training transfer. The ANOVA indicated no significant main effect for time in a job position; a main effect for the treatment condition on perceived training transfer was found with $F(1, 107) = 59.77$, $p = .00$. No significant interaction effect emerged between time in a job position and the treatment condition, with $F(6, 107) = .13$, $p = .43$. In conclusion, neither time in a job position alone, nor in interaction with the treatment condition, influenced perceived training transfer.

Belief that training Improves job Performance X Treatment Condition Effects on Perceived Training Transfer

A 3 x 2 ANOVA was conducted to evaluate the effects of the belief that 'training will improve job performance' (3 levels: yes, no, unsure) and treatment condition on perceived training transfer. The following questions were asked:

- *Does the belief that training will improve job performance influence perceived training transfer?*
- *Does the influence of the belief that training will improve job performance on perceived training transfer depend on the treatment condition?*

Hypothesis Tested

- *It was hypothesised that those who believed that 'training would improve job performance' will perceive greater training transfer.*

As demonstrated by the ANOVA, the belief that 'training will improve job performance' did not have a significant effect on PTT. A significant main effect was replicated for treatment condition on perceived training transfer with $F(1, 116) = 47.64$, $p = .00$. There was no significant interaction effect $F(1, 116) = .00$, $p = .99$. In conclusion, the belief itself that 'training will improve job performance' did not affect perceived training transfer, not even in interaction with treatment condition. The hypothesis was unsupported.

Belief that 'Training is tailored to the Job' X Treatment Condition Effects on Perceived Training Transfer

A 3 x 2 ANOVA was conducted to evaluate the effects of the belief that training is tailored to job needs (3 levels: yes, no, unsure) and treatment condition on perceived training transfer. The following questions were asked:

- *Does the belief that training tailored to the job influences perceived training transfer?*
- *Does the influence of the belief that training tailored to the job on perceived training transfer depend on the treatment group?*

Hypothesis Tested

- *It was hypothesised that those who believed that 'training is tailored to job needs' would perceive greater training transfer.*

The analysis indicated that there was no significant main effect for variables representing the belief that 'training is tailored to job needs.' A significant main effect of treatment condition on perceived training transfer was found with $F(1, 115) = 32.45$, $p = .00$. No significant interaction effect emerged with $F(2, 115) = .32$, $p = .09$. Apparently, the belief that 'training is tailored to job needs' does not impact on PTT either 'alone' or in terms of a statistical interaction effect involving treatment condition. Treatment Condition did influence perceived training transfer. The hypothesis was unsupported in that the belief that 'training was tailored to job needs' did not related to perceptions of training transfer.

Self-directed Learning X Treatment Condition Effects on Perceived Training Transfer

An 8 x 2 ANOVA was conducted to evaluate the effects of the belief that 'self-directed learning is best' (3 levels: yes, no, unsure) and treatment condition on perceived training transfer. The following questions were asked:

- *Does the belief that 'self-directed learning is best' influence perceived training transfer?*
- *Does the influence of self-directed learning beliefs depend on the treatment condition?*

No directional hypothesis was formulated, although data permitted the exploration of whether participants' beliefs of 'self-directed learning' influenced perceptions of training transfer. An examination of effects detected no significant main effect for the 'self-directed learning belief.' A significant main effect for treatment condition on perceived training transfer was found with $F(1, 115) = 83.25$, $p = .00$. No significant interaction effect emerged [$F(2, 115) = .410$, $p = .67$]. In conclusion, the belief that 'self-directed-learning' is best (alone, or in interaction) failed to impact on perceived training transfer.

Summary

The central conclusion for the analysis is that 'general input characteristics' (demographics, job characteristics, and beliefs about training) existing before training, did not influence perceived training transfer. Overall, no main effects or interaction effects emerged for any of the nine 'general input characteristics.' Data consistently revealed a significant main effect for the treatment condition. This effect remained consistent across all of the nine combinations of predictors in the two-way ANOVAs. Given the nature of ANOVA, the findings confirm the significant effect of treatment condition and relativises any discrepancy that may have remained between the treatment and control groups' in terms of their demographics, job characteristics, and beliefs about training. The ANOVA results lend support to significant effects detected by inter-group comparisons (t-tests), and clarifies the consequence of the training interaction through the hypotheses that the nine 'general input characteristics' would be unrelated to PTT.

A Caution with ANOVA Results

The use of repeated ANOVA analysis on the 'input characteristics' can be regarded as preliminary. Like repeated t-tests, repeated ANOVA can inflate the *F* statistic to yield an effect where none exists (type I errors), especially when there is inter-variable correlation's. Therefore, the results should be treated with some interpretative caution. However, the results of the ANOVA can be regarded as a 'stepping-stone' to analysis of a higher-order factor, such as illustrated in Multiple Regression which follows.

The Influence of the Intervening Conditions on Perceived Training Transfer

To fulfil the primary objective, a statistical tests was required to determine the extent to which the 'intervening conditions' from Holton (1996) 'Evaluative Research & Measurement Model' influenced perceived training transfer. Specifically, the question was asked: To what degree to 'Trainee Characteristics' and the 'Work Environment (transfer climate)' predict perceptions of training transfer?

Selection of Regression Models

Because of the large number of potential explanatory factors (16) and sub-scales within the LTQ (4), and because of the unknown contributions each factor within its sub-scale of the LTQ might make to the prediction of perceived training transfer, sub-scale factor groups were initially run through four independent 'standard entry' regressions. The LTQ four sub-scales included: *Trainee Characteristic Scale* (2 factors); *Motivational Scale* (3 factors); *Work Environment Scale* (7 factors); and an *Ability Scale* (4 factors). The idea here was to determine the contribution each factor within its sub-scale of the LTQ made to the prediction of perceived training transfer. Subsequently, a series of four stepwise regressions were run to identify the best individual predictor of perceived training transfer from each of the four sub-scales of the LTQ.

Previous research (Holton et al., 1997) suggests that some factors within the sub-scales of the LTQ are more salient predictors of perceived training transfer than others. In order to establish this, predictors that emerged during the stepwise regression were entered into a hierarchical regression model in descending order, as guided by both the results of the stepwise regression and the theoretical model and findings proposed by Holton et al (1997). In particular, the hierarchical regression model was used to establish

the relative impact of; S*upervisory Support, Opportunity to Use Learning, Peer Support, Supervisory Sanction, Personal Outcomes – Positive, Personal Outcomes – Negative, Resistance, Perceived Content Validity and Transfer Design*, as predictors of training transfer, as described in Holton et al (1997) construct validity study on the LTQ.

The Dependent Factor

The sheer number of dependent factors (14) (derived from the perceived transfer of training scale) suggested that the set of variables had to be simplified. With the original list of dependent factors, a total of 14*16*3 = 672 regressions would have to be run making for an impractical approach to data analysis. Moreover, a single dependent factor may help to identify significance, and reduce the chance of type II errors. The use of multiple dependent factors may also increase the chance of experimental error, whereby one is left without control of the effective overall or experimental-wide type I error rate (Hair et al, 1998). This is particularly true when there is some degree of inter-correlation between the dependent variables. In order to establish the inter-correlation between factors, Pearson correlation coefficients were conducted on the 14 change score (PTQ2 – PTQ1) dependent variables. Results revealed a high degree of correlation for many of the dependent factors. Given the amount of output, Pearson's correlations were not included in this report. As a first line of evidence, the results of the correlation analysis support the development of a single higher-order factor for perceived training transfer. Further support for such a composite index comes from the development of the scale from which the dependent factors were derived. The 14 dependent factors were extracted via a content analysis (Cf. Appendix VII) of the '*Managing Customer Complaints'* training pack, therefore each factor ascribed to the universal common theme of how to manage a customer complaint. On closer inspection of the factors, it was clear that they addressed separate, but related aspects of the same theme, namely the management of customer complaints. To derive a composite PTT index, a principal axis factor analysis with Varimax rotation was performed on the temporal variables (change scores) (14) formerly generated over data from the perceived transfer of training scale. An examination of skewness and kurtosis diagnostics indicated that the variables were relatively normally distributed. The Bartlett test for sphericity was significant and Kaise-Meyer-Olkin measure of sampling adequacy exceeded the minimum of .6 with a value of .813. Therefore, it was appropriate to proceed with factor analysis. The idea here was to verify whether the dependent factors could be reduced to fewer factors or a single factor. Three

criteria were used to determine the number of factors: a prior hypothesis that the scale was unidimensional, a Scree plot, and the interpretability of the factor solution. The Scree Plot, Figure 7.1, indicated that the initial hypothesis of unidimensionality was correct. Five factors accounted for 46.386% of the cumulative variance, although factor one (Manage to Maintain Customers, 1.1) dominated with an Eigenvalue of 3.93 and explained variance of 28.10%, while the remaining four factors had Eigenvalues under 1.0, supporting a single higher-order index (Cf. Table 7.16: Factor loading). To confirm the reduction, Cronbach's test for internal consistency amongst the 14 performance dependent factors was computed. This yielded an alpha of .80 with a standardized alpha of .83 for a single dependent factor. The newly dependent variable was calculated as the series mean of 14 factors, and interpreted as the overall change in perceived transfer of training.

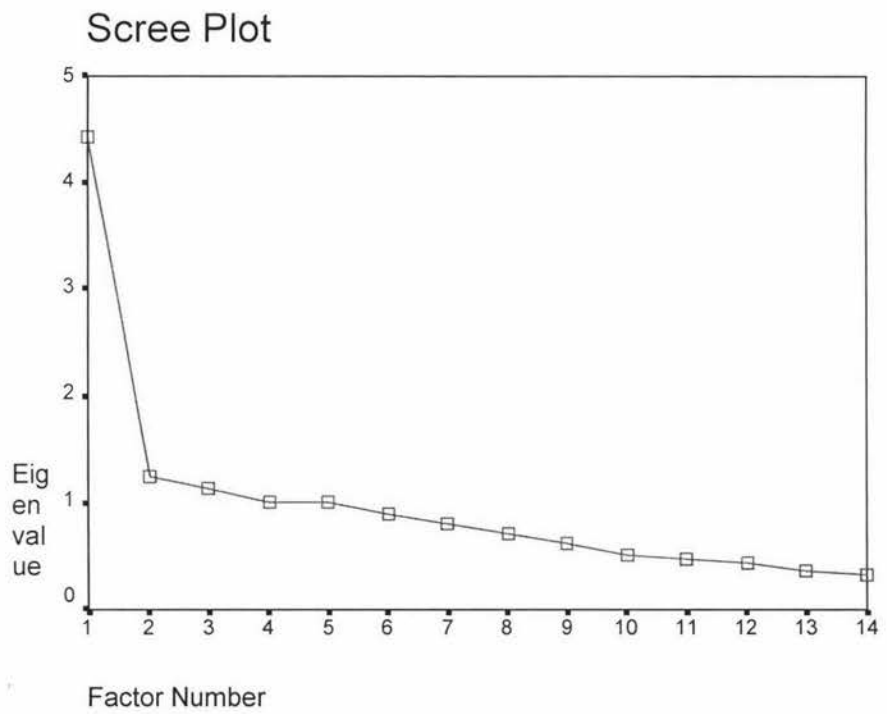

Figure 7.1: Scree Plot of Performance Dependent Variables from a Varimax factor Analysis

Factors	Extracted Sums Squared Loading		
	Eigenvalue Total	% Of Variance	Cumulative %
1	3.93	28.10	28.10
2	.83	5.93	34.03
3	.73	5.18	39.21
4	.53	3.81	43.02
5	.47	3.37	46.39

Table 7.16: Factor Loading for PTQ Change Variables

Predictors

As mentioned, the 16 factors of Holton et al's (1997) *Learning Transfer Scale* (LTQ) were used as predictors of perceived training transfer in accordance with the literature quoted in Chapters 1 through 3. Following, a series of 3*4 = 12 regression models (enter, stepwise, & hierarchical) were run against the four LTQ sub-scales. The most predictive sub-scale independent variables of the learning transfer questionnaire were run through a hierarchical regression model.

Regression Assumptions

The assumption of ratio (20:1) of cases to independent variables (predictors) was met through the adoption of schema in which predictors were entered into the model according to their sub-sample scale origin. For instance, *Learner Readiness* was entered with other predictors from the *Trainee Characteristics Scale.* Consequently, there were at least 20 times more cases then predictors in any given regression (Coakes & Steed, 1999). In order to screen for multivariate outliers, Mahalanobis distance was calculated and residual plots produced. Results indicated no distance greater than the critical value of Chi-Squared at an alpha of .001, thus no multivariate outliers emerged. Scatter plots of residual against predicted values revealed no clear relationship between the residuals and predicted values (i.e. independence of residuals), consistent with the assumption of linearity. For instance, Figure 7.2 is a scatter plot of standardized residuals against standardized predicted values for a four-predictor hierarchical model reported later in this chapter. Normal plots of regression-standardized residuals were plotted against the dependent variable. Results of this screening indicated a fairly normal distribution. For instance, the normal plot of standardized regression for the four predictor solution from a hierarchical regression model presented in Figure 7.3 shows a relatively normal distribution.

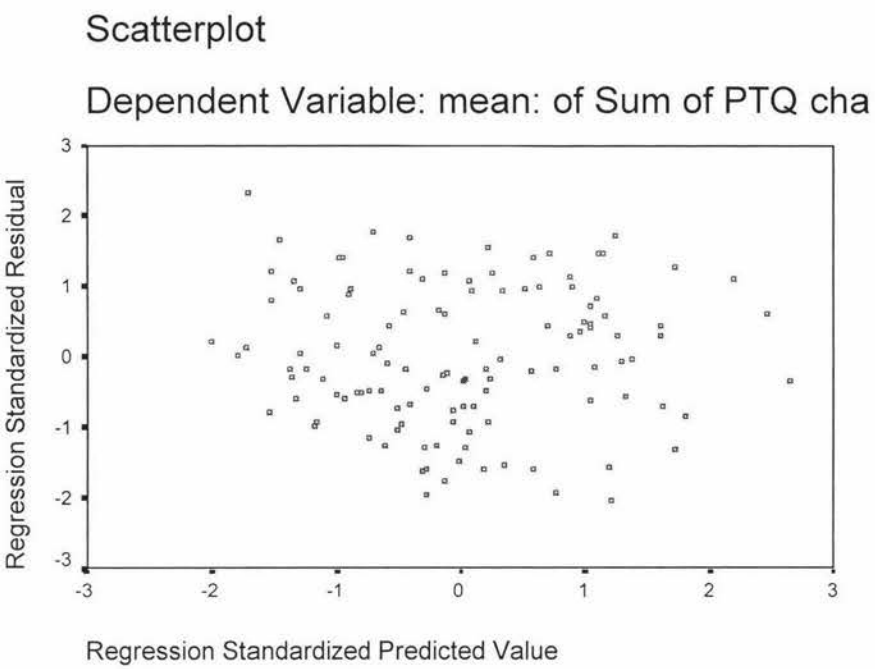

Figure 7.2: Scatter plot of standardized residuals against standardized predicted values for a four predictor hierarchical model.

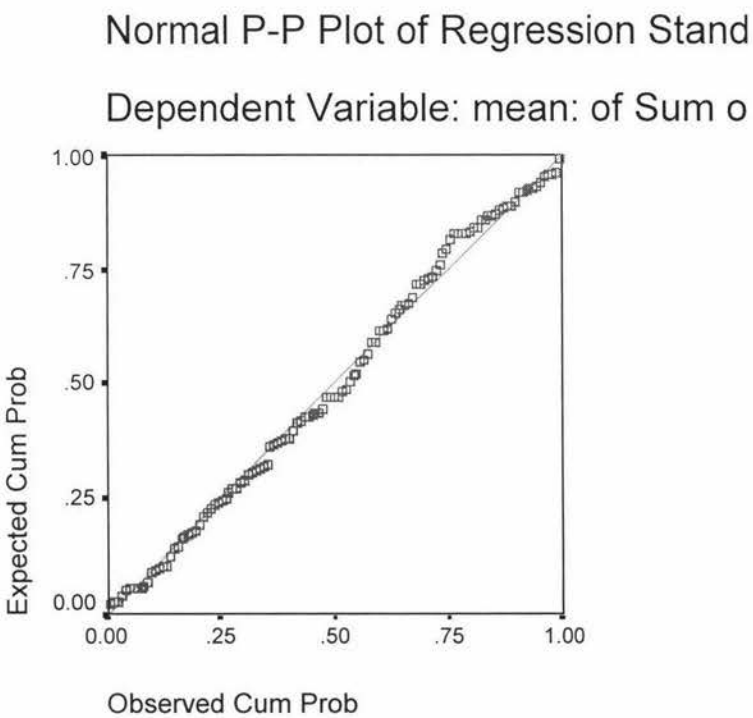

Figure 7.3: Normal plot of standardized regression for the four-predictor solution from a hierarchical regression model.

Having satisfied the assumption of regression analysis, it was safe to assume that the results of the regression models would be sound.

Collective & Relative Predictive Power of 'Trainee Characteristics'

- *It is hypothesised that participants with more positive Trainee Characteristic (including higher Learner Readiness and Performance Self-Efficacy) will perceive greater training transfer from the 'Managing Customer Complaints training Module.'*

- *It is hypothesised that either 'Learner Readiness' or 'Performance Self-Efficacy' from the Trainee Characteristics Scale will demonstrate a systematic, discernable pattern in predicting PTT.*

An unordered 'standard entry' multiple regression was run to evaluate the collective contribution made by *Trainee Characteristics Scales* (i.e. *Learner Readiness & Performance Self-Efficacy*) to the prediction of perceived training transfer. The results of the regression revealed that neither one of these variables significantly contributed to the prediction of perceived training transfer with an R squared = .03, adjusted R squared = .010, $F(2, 118) = 1.63$, $p = .20$. Subsequently, no stepwise or hierarchical regression was fitted with either of these two factors. Neither hypothesis was supported.

Aggregate Predictive Power of 'Motivational Dimensions'

Motivational Dimensions: Sub-Scale of Trainee Characteristics

- *It is hypothesised that participants who have higher motivation (including higher Motivation to Transfer Learning, Transfer Effort –Performance Expectations, Performance – Outcomes Expectations) will perceive greater training transfer from the Managing Customer Complaints training back to their jobs.*

An unordered 'standard entry' multiple regression was run to evaluate the collective contribution made by *Motivational Scales* (*Motivation to Transfer, Transfer Effort-Performance Expectations, & Performance Self- Efficacy*) to the prediction of perceived training transfer. Results demonstrated that these three variables collectively accounted

for 12.3% of the variance in perceived training transfer, with an *R* squared = .12, adjusted *R* squared = .10. Moreover, motivational scale variables were highly significant with an $F(3, 117) = 5.49$, $p = .001$. Following, an examination of the *t* values indicated that *Transfer Effort – Performance Expectation* contributed most significantly to the prediction of perceived training transfer with $t\ (119) = 3.56$, $p = .001$. The regression model suggests that motivational factors do make a small, but significant contribution to the prediction of perceived training transfer, with some support for the proposed hypothesis.

Relative Predictive Power of 'Motivational Dimensions'

- *It is hypothesised that specific factors within the 'Motivation Scale' (Motivation to Transfer Learning, Transfer Effort –Performance Expectations, Performance – Outcomes Expectations) will demonstrate systematic, relative predictability for perceived training transfer.*

A stepwise regression model was calculated to determine whether *Transfer Effort – Performance Expectations* was a significant contributor to the prediction of training transfer from the *Motivation Scales*. Results from this indicated that *Transfer Effort – Performance Expectations* alone was a highly significant contributor explaining 10.1% of the variance in perceived training transfer [*R* squared = .101, adjusted *R* squared = .09, $F(1, 119) = 13.33$, $p = .00$]. The other two independent variables from the motivational scale, including *Motivation to Transfer Learning* and *Performance – Outcome Expectations* failed to meet the selection criterion and were excluded from the model. The hypothesis was supported insofar as some motivational factors are more predictive of perceived training transfer than others.

Collective Predictive Power of the 'Work Environment'

- *It is hypothesised that participants who have more positive perceptions of the 'Work Environment' (including higher ratings across Feedback/Performance Coaching, Supervisory/Manager Support, Supervisor/Manager Sanction, Peer Support, Resistance/Openness to Change, Personal Outcomes – Positive, Personal Outcomes*

– *Negative) will perceive greater training transfer from the Managing Customer Complaints Training module.*

An unordered 'standard entry' multiple regression was run to evaluate the composite contribution made by the *Work Environment Scales* (including, *Feedback/Performance Coaching, Supervisory/Manager Support, Supervisory/Manager Sanction, Peer Support, Resistance/Openness to Change, Personal Outcomes – Positive, & Personal Outcomes – Negative*) to the prediction of perceived training transfer. The regression revealed that these seven variables cumulatively predicted 39.2% of the variance in perceived training transfer [*R* squared = .39, adjusted *R* squared = .36]. 'Work Environment Scales' variables were highly significant with an $F(7, 113) = 10.42$, $p = .00$. An examination of the *t* values indicated that of the seven variables, *Supervisory/Manager Support* contributed the most significantly to the explained variance in PTT [t (112) = 4.47, $p = .00$]. Make a less, but important contribution to the significance of the predictor were *Feedback/Performance Coaching* [$t(112) = 2.44$, $p = .02$], and *Resistance/Openness to Change* [$t(112) = 2.38$, $p = .02$]. The regression model suggests that the 'Work Environment make a highly significant contribution to the prediction of perceived training transfer, supporting the hypothesis.

Comparative Predictive Power of 'Work Environment Scales'

- *It is hypothesised that specific factors of transfer conditions within the Work Environment Scales (Feedback/Performance Coaching, Supervisory/Manager Support, Resistance/Openness to Change) will show systematically, discernable pattern in predicting perceived training transfer.*

A stepwise regression model was calculated to identify the best predictor of perceived training transfer from the three variables isolated during the standard entry regression conducted on the *Work Environment Scales*. Results from this indicated that *Supervisory/Manager Support* made a highly significant contribution to the prediction of perceived training transfer [28.9% of the variance with *R* squared = .29, adjusted *R* squared = .28, $F(1, 119) = 48.33$, $p = .00$]. *Feedback/Performance Coaching* added an additional 3.3% to the explained variance, with an *R* square change = .03, and an *F change* $(1, 118) = 5.72$, $p = .018$. *Resistance/Openness to Change* added a further 3.6% to the explained variance [*R* square change = .036, and an *F change* $(1, 117) = 6.58$, $p = .01$].

Finally, an examination of the *t* values indicated that *Supervisory/Manager Support* contributed most significantly to the prediction of perceived training transfer [*t* (119) = 6.95, *p* = .00]. When combined with *Feedback/performance Coaching, Supervisory/Manager Support* continued to present *a t*(118) = 5.55, *p* = .00, and *Feedback/performance Coaching* [*t*(118) = 2.39, *p* = .02]. When all three variables were aggregated, *Supervisory/Manager Support* presented with a *t*(117) = 5.59, *p* = .00, *Feedback/Performance Coaching* with a *t*(117) = 2.66, *p* = .01, and *Resistance/Openness to Change* with a t value of *t*(117) = 2.56, *p* = .012. *Supervisory/Manager Support* emerged as the most salient explanatory factor for PTT from the 'Work Environment Scales,' with *Feedback/Performance Coaching, and Resistance/Openness to Change* making a discernable smaller contribution. The hypothesis was supported.

Composite Predictive Power of the 'Ability Scales'

Ability Scale: A Sub-Scale of the Work Environment

- *It is hypothesised that participants with more positive perception on the 'Ability Scales' (Opportunity to Use Learning, Personal Capacity for Transfer, Perceived Content Validity, Transfer Design) will perceive greater training transfer.*

An unordered standard enter multiple regression was calculated to evaluate the collective contribution made by variables in the *Ability Scales* (including *Opportunity to Use New Learning, Personal Capacity for Transfer, Perceived Content Validity, and Transfer Design*) to the prediction of PTT. Regression analysis revealed that the *Ability Scales variable* (4) collectively, and significantly, predicted 24.6% of the variance in perceived training transfer [*R* squared = .25, adjusted *R* squared = .22, *F*(4, 116) = 9.48, *p* = .00]. Inspection of the *t* values indicated that of the four variables, *Perceived Content Validity* contributed most significantly to the prediction of PTT [*t* (119) = 3.08, *p* = .00]. Make a less but important contribution to the significance of the predictor was *Transfer Design* with a *t*(119) = 2.60, *p* = .01. The other two variables from the *Ability Scales,* including the *Opportunity to Use learning*, and *Perceived Capacity for Transfer* did not produce significant *t* values. Based on these results, it would appear that the *Perceived Content Validity* and *Transfer Design* are the most important determinants of PTT from the 'Ability Scales.' thus providing partial support for the hypothesis.

Respective Predictive Power of the 'Ability Scales'

- *It is hypothesised that specific factors of transfer conditions from the 'Ability Scales' (Perceived Content Validity, and Transfer Design) will demonstrate a systematic, discriminative difference in their relative influence on PTT.*

Subsequently, a stepwise regression model was run to identify the best predictor of perceived training transfer from the two significant variables isolated during the standard entry regression. Results from this indicate that *Perceived Content Validity* made a highly significant contributor to the prediction of perceived training transfer by accounting for 19.6% of the variance with [R squared = .196, adjusted R squared = .19, $F(1, 119) = 28.99$, $p = .00$]. *Transfer Design* added an additional 4.1% to the explained variance, with an R square change = .041, and an *F change* $(1, 118) = 6.42$, $p = .01$. An examination of the t values indicated that *Perceived Content Validity* contributed most significantly to the prediction of PTT [t (119) = 5.39, $p = .00$]. When combined with *Transfer Design, Perceived Content Validity* presented with a $t(118) = 3.52$, $p = .00$, and *Transfer Design* with a $t(118) = 2.53$, $p = .01$. This indicating that *Perceived Content Validity* is the most important contributor to the prediction of perceived training transfer, lending support to the hypothesis.

Theoretical Relationship between Intervening Conditions & Perceived Training Transfer

- *Following Holton et al's (1997), it is hypothesised that specific intervening conditions (out of the entire set of explanatory scales) will be more predictive of perceived training transfer. Specifically, and in order, Supervisory Support, Opportunity to Use Learning, Peer Support, Supervisory Sanction, Personal Outcomes – Positive, Personal Outcomes – Negative, Resistance/Openness to Change, Perceived Content Validity and Transfer Design were shown to be the most salient explanatory factors of PTT (Holton et al., 1997).*

In order to establish the relative importance of sub-scale predictor (which emerged as significant during the stepwise regression) a hierarchical regression model was fitted. Moreover, previous research suggests that some of intervening conditions (Holton et al., 1997) are more salient predictors of perceived training transfer than others. Consequently, the order of variable entry into the model was guided by the literature which suggested

that: *Supervisory Support, Opportunity to Use Learning, Peer Support, Supervisory Sanction, Personal Outcomes – Positive, Personal Outcomes – Negative, Resistance/Openness to Change, Perceived Content Validity, and Transfer Design* were salient explanation of PTT (Holton et al., 1997). Unfortunately, *peer support, supervisory sanction, personal outcomes – positive, personal outcomes – negative* were excluded from the hierarchical model because they failed to meet the selection criterion during stepwise regression analysis in this investigation. However, two new variables (not mentioned in the theory), *Transfer Effort – Performance Expectations*, and *Feedback/Performance Coaching* emerged as predictors in this sample, unlike that of Holton et al (1997), where they did not. Consequently, both the literature and the results of the stepwise regression previously performed, guided the order in which hypothesised and emergent variables were entered into the hierarchical regression model. Initially, S*upervisor/Manager Support* was entered, followed by, *Perceived Content Validity, transfer design, Resistance/Openness to Change, Transfer Effort – Performance Expectations,* and *Feedback/Performance Coaching.* The first model with all six variables entered revealed that *Supervisory/Manager Support* was the most significant predictor of perceived training transfer accounting for 28.9% of the variance [*R* squared = .29, adjusted *R* squared = .28, $F(1, 119) = 48.33$, $p = .00$]. *Perceived Content Validity emerged* as the next most *significant predictor* accounting for an additional 7.1% of the variance in PTT [*R* square change = .071, and an *F change* (1, 118) = 13.03, $p = .00$]. *Transfer Effort – Performance Expectation* added an additional 3.1% to the variance of PTT [*R* square change = .031, and an *F change* (1, 117) = 6.29, $p = .01$]. However, on examination of the *t* values only these three factors managed to meet the selection criterion for the final model. This included *Supervisory/Manager Support* with a *t (119)* = 5.49, $p = .00$, and *Perceived Content Validity* [$t(118) = 3.61$, $p = .00$]. The final factor, *Transfer Effort –Performance Expectations*, although not achieving a significant *t* value, did present the third highest significant *F* change prediction of PTT and was thus include in the running of the final three factor prediction solution. In this model, a two-factor model was settled on with *Supervisory/Manager Support* and *Perceived Content Validity* because *Transfer Effort –Performance Expectations* failed to yield a significant *t* [$t(117) = 2.51$, $p = .01$]. In conclusion, the present study settled on a final two-factor hierarchical model, which accounted for 36% of the variance in perceived training transfer. The hypothesis received support with some factors mirroring the theorised relationships

proposed by Holton et al's (1997), including *Supervisory Support* and *Perceived Content Validity.*

Section Four

Qualitative Data

Trained Group Response to Qualitative Questions

Although a qualitative component was included to corroborate the findings from the quantitative data, response to these questions were both low and so lacking in detail as to be of no value to the investigation. Consequently, the qualitative data had to be disregarded from consideration. The questions pertaining to the qualitative data were items 46, 47, and 48 from questionnaire 4 for the treatment group. The consequential loss of this potentially fruitful data source is discussed with the limitations.

Background Interviews with HR Manager, Training Designer and training Facilitator

Although background review of training policy, the training designer, training design, and training evaluation was conducted to determine the value placed on training by the organisation (in terms of the depth of effort and care put into training intervention preparation and delivery) (Goldstein, 1993; Quinones & Ehrenstein, 1997). These interviews were motivated by the desire to collect potential explanatory information about training and training success as a means to facilitate interpretation of the statistical results. Specifically, the interview material may shed some light on why training failed or succeeded despite the absence or presence of ideal conditions (intervening conditions) for transfer, thus adding to the explanatory power of the investigation. The interview questions (Cf. Appendix V) directed at the training designer and HR Manager can be divided into 5 parts (training design, training facilitator, training delivery, training evaluation, training & the job), each addressing aspects deemed to be important to training success (Quinones & Ehrenstein, 1997; Arnold et al., 1991; Goldstein, 1993). Following, a summary of each area is given with reference to in-house training and the 'Managing Customer Complaints' training module.

No training 'needs analysis' was conducted, either at a formal or informal level, as a part of training development. Despite this, the need for training was derived from a

'general managerial perception' that such an intervention would aid in promoting a 'sales-oriented' atmosphere amongst employees.

The intervention clearly outlined 'instructional objectives' (Cf. Appendix VII), which were followed throughout the training, each of which was addressed in a unit of the intervention. The objectives themselves can be seen to embody an overall aim, which is articulated at the beginning of the training course.

Trainees did not participate during the design of the intervention, nor were they consulted as to their expectations or perceived relevance of the course to their jobs. Material requirements for the intervention were minimal. As a self-administered course, instructors were not required. Materials consisted of a self-administered paper-based training package.

A training designer was contracted to develop the intervention. Although an experienced secondary school teacher, the training designer was not from the banking industry. However, the training designer was versed in matters of curriculum design and pre-training preparation.

Employees' were selected for the training program on the basis that they were at the front-line (shop front) of organisational activities in the capacity of trading bank staff. A total of 13 job families were identified for the training course. For instance, bank tellers, branch managers, and sales officers. Participation in the program was mandatory, although staff had some decision power in terms of when they undertook training. Before training, trainees received general information about the course. After training, there was no strategy in place for facilitating the application of new skills, no follow-up exercises planned, no debriefing, and no orientation or adjustment period. Similarly, there was no plan to evaluate training either in a summative or formatively capacity. No strategy was devised to assess the social or economic benefits of training. Despite this, performance benefits would be assessed through trainees' periodic performance appraisals. Moreover, training aims and activities had been linked to performance appraisals through job descriptions via incumbent Key Performance Indicators (KPI's). Therefore, some effort had been made to associate training activities with trainees job situations.

Chapter Eight

Discussion

The expression, 'the operation was successful, but the patient died,' makes an excellent analogy for the transfer of training problem.

The major objective of the present investigation was to determine the influence of situational, training design, and trainee characteristics on perceived training transfer in an in-house New Zealand context, private-sector training intervention. In the last two decades, various authors (within the training discipline) have demonstrated the impacts of work environment (e.g. transfer climate), training design, and trainee characteristics on training transfer (Baldwin & Ford, 1988; Noe 1986; Seipel, 1986; Hicks & Klimoski 1987; Latham, 1988; Gist 1990; Gist et al., 1991; Latham & Crandall, 1991; Tziner et al., 1991; Ford et al., 1992; Tannenbaum & Yukl, 1992; Mathieu et al., 1992; Mathieu et al, 1993; Curry et al., 1994; Tracey et al., 1995; Wexley & Baldwin 1996; Axtell et al., 1996; Rouiller & Goldstein, 1991; Goldstein, 1993; Holton et al., 1997). Many of these authors have proposed models in which they identify and attempt to explain the relationship between factors within these three categories (i.e. work environment (e.g. transfer climate), training design, and trainee characteristics), and their impact on transfer of training (Huczynski & Lewis, 1988; Noe, 1986; Baldwin & Ford, 1988; Richey, 1992; Foxon, 1994; Yelon, 1992; Garavaglia, 1996; Tracey, Tannenbaum, & Kavanagh, 1995; Cannon-Bowers, Salas, Tannenbaum, & Mathieu, 1995; & Holton, 1996). Factors such as self-efficacy (Ford et al., 1992; Gist et al., 1990; Tannenbaum et al., 1991); motivation (Mathieu et al., 1992; Noe, 1986; Tannenbaum et al., 1991); training relevance (Baldwin & Ford, 1988; Goldstein, 1986); principles of learning (Decker, 1982); job involvement (Mathieu et al., 1992; Noe & Schmitt, 1986); ability (Robertson & Downs, 1989; Ryman & Biersner, 1975); autonomy (Huczynski & Lewis 1980); transfer climate (Tracey et al., 1995; Rouiller & Goldstein, 1993; Holton et al., 1997); supervisory support (McSherry, 1992; Baldwin & Ford, 1988, Ford et al., 1992; Huczynski & Lewis, 1980; Marx, 1982); and social support (James & James, 1989; Facteau et al., 1995) have been similarly diagnosed as important determinants of training transfer within these models. More recently, Holton (1996, pp. 7), who proposed the *Evaluative Research & Measurement model*, collectively referred to these influential factors as 'intervening conditions'. Holton's model attempts to explain the

effect of the previously mentioned factors on training transfer in terms of their influence on learning and performance outcomes (Holton et al., 1997).

This study adopted Holton's model and instrumentation to determine the relationship between perceptions of the 'intervening conditions' (IV) and perceived training transfer (DV). In the latter case, a scale was developed (e.g. perceived transfer questionnaire (PTQ) off the combined use of a content analysis, Ford and Wroten's (1984) content validity ratio (CVR), and Fink and Kosecoff's (1978) program evaluative standards. Data for the investigation was collected from employees in private-sector organisation, who participated in an in-house training intervention. Over the period of training, participants (and a matched control group) responded to four questionnaires in a quasi-experimental design with pre- and post-testing.

This project is justified on the basis of the unchecked growth in the training industry in which organisations were seeing little return on their investment in terms of transfer (Cf. Chapter 1). This problem has been exacerbated by a lack of rigorous evaluative research and training needs analysis by organisations, which has lead to a decline in the quality and delivery of training (Seipel, 1986; Latham, 1988; Curry et al., 1994; Tziner, Haccoun, & Kaddish, 1991; Noe, 1986; Ford, Quinones, Sego, & Sorra, 1992; Goldstein, 1986, 1991; Tannenbaum & Yukl, 1992). Moreover, the field of training transfer has received only limited theoretical and empirical attention (Goldstein, 1986, 1991, & 1993; Baldwin, 1988; Gist, 1989; Gist et al., 1991; Tracey et al., 1995. Tannenbaum, & Kavanagh, 1995; Holton et al., 1997; Facteau et al., 1995; Tracey, Tannenbaum, & Kavanagh, 1995; McSherry & Taylor, 1994; Tannenbaum & Yukl, 1992; Ford, Quinones, Sego, Sorra, 1992), despite the estimate that 85% to 90% of training does not transfer (Patrick 1992; Wexley & Latham, 1991; Baldwin & Ford, 1988; Huczynski & Lewis, 1988; Georgenson, 1982; Curry, Caplan, & Knuppel, 1994).

What research has been undertaken reveals that a large proportion of the training conducted fails to transfer to the work environment (Goldstein, 1986; Baldwin & Ford, 1988; Tziner et al., 1991; Tracey et al., 1995). This imbalance between investment in training and the use of trained skills back in the work setting signals a 'transfer of training problem'. This investigation attempted to address some of the issues influencing medium-term training effectiveness as a step toward raising both theoretical

and practical awareness with a general goal to enhancing training transfer.

The following discussion has been organised according to the order of the hypotheses tested and the results found.

Intra-Group Comparisons

Before determining the influence of the 'intervening conditions,' attempts were made to demonstrate the perceived success of the training in terms of transfer, by comparing results from a trained and non-trained treatment group.

- *It is hypothesis that skills and attitudes will be perceived to be transferred from the training program (Managing Customer Complaints training module) to the work setting for all groups participating in training (i.e. treatment group).*

The results lent strong support to the hypothesis such that those who had participated in training perceived training transfer. This was evident in perceived improvements in skills and attitudes pertaining to the training intervention through a comparison of pre- and post-test training data. This result demonstrates that training led to the successful acquisition and post-training application of training skills in the work context. It appears, therefore, that the training intervention was both relevant and beneficial enough to trainees for them to generalise and maintain those acquired skills in their jobs. The result was not unexpected given that the skills taught were reflected in trainees' (bank tellers' & sales officers') job descriptions. Specifically, trainees in these job positions occupied service-oriented roles in which they are expected to maintain existing customers, recruit new customers, and sell bank services and products. A part of customer maintenance rests on the employees ability to reasonably satisfy customer needs, which at times, requires an aptitude for 'managing' dissatisfied customers. Moreover, the successful use of skills was linked to the organisational reward system in terms of *key performance indicators* (KPI's) for incumbents' *performance appraisals*, which are in turn linked to salary reviews and promotions. Finally, the experiential nature of the training meant that trainees were required by 'training design' to practicing skills on the job. This meant that trainees were provided opportunity from training and their work to practice and develop their new skills in the context of the jobs (Baldwin & Ford, 1988; Goldstein, 1991; Tracey et al., 1995; Ehrenstein, 1996).

Having explored whether training 'worked' for those who undertook it, the question arose as to whether those not participating in training would perceive any significant changes in their skills and attitudes for managing customer complaints. In order to determine this the following hypothesis was tested.

- *It was hypothesis that those not participating in training (i.e. control group) would perceive no significant change in skills and attitudes for managing customer complaints in the work setting.*

For all but two of the 14 construct dimensions (perceived training transfer) tested, there was no significant shift in attitudes and skills for managing customer complaints for those who had not participated in training. The two skills that did show a significant change were *'Recognition of the need for National Manager customer relations'*, and *'Actively Listens in a Conflict Situation.'* One potential reason for the significant improvement in the first skill may be that it had become an issue in the bank, the importance of which was pointed out to all incumbents, reminding them how and when to refer to the National Manager of Customer relations. In the case of the latter skill, a review of the four training modules preceding the 'Managing Customer Complaints Module' indicates that these earlier modules included aspects for training listening Skills. For instance, two modules from the *'Sales Accreditation Framework'*: *'Customer Services Excellence'*, and *'Steps to Successful Selling I'* incorporated aspects for training listening skills as part of effective communication (i.e. production and reception skills). For the remaining 12 construct dimensions tested, the hypothesis that the non-training group perceived no significant change in their skill was confirmed. This result adds support to the significant result obtained for the training group. Specifically, changes in the training group's skills for managing a customer complaint can be more directly attributed to the training intervention on the basis of non-significant changes for the non-training group (control). In other words, training appears to be the sole explanation for the changes in the training group's skills for managing customer complaints in terms of perceived training transfer.

The above preliminary results established that participation in training lead to perceived training transfer for the training group, and no transfer for the non-training group. Additional statistical analysis was undertaken to see whether perceived changes

were significantly different between the training and the non-training group before (time 1) and after (time 2) training. In other words, differences between the treatment conditions were examined separately for the two stages of assignment: before and after training.

Inter-Group Comparisons

A hypothesis was tested to establish whether there was a significant difference in perceptions of training transfer between the training and non-training groups (i.e. treatment and control) at time 1 and time 2: -

- *It was hypothesised that there would be a significant difference between the treatment and control groups' perceptions of training transfer.*

Data supported the hypothesis: Training and non-training groups showed no significant difference in (for 11 of the 14 dependent factors) their perceived skills and attitudes to manage customer complaint before training. However, after training, there was a significant difference (in all but one of the 14 dependent variables) between the training and non-training group perceived ability, knowledge, and skills to manage customer complaints. Subsequently, a higher-order test (conducted with a single dependent variable for perceived training transfer) strongly supported the hypothesis. Specifically, the higher-order test supported the hypothesis that there was no significant difference between the treatment and control groups' perceptions of training transfer at time 1. However, at time 2 results demonstrated that there was a significant difference between the treatment and control groups' perceptions of training transfer. Thus, results imply that training did have a significant impact on those participating in training. Perceived changes in skills and attitudes for managing a customer complaint within the training group were measurably different in terms of their improvement. These results were rendered more reliable by the results of the `background dimensions`, which showed a high degree of similarity in the characteristics of members from the treatment and control group. As a consequence, difference that emerged between these groups can be attributed with more confidence to the training. However, the nature of the influence of training on treatment and control group members required further clarification. With this in mind, attention turned to determining whether the differences in the treatment conditions at time 2 (after training) were attributable to training, or to extraneous

characteristics of the treatment group. To eliminate the possible confounding effects of irrelevant characteristics, a series of two-way ANOVAs were conducted.

Influence of General Input Characteristics on Perceived Training Transfer

Several hypotheses regarding background dimensions were tested. 'Ethnicity', 'age', 'gender', 'job position', 'time in job position', 'time in the organisation', 'belief that training improves job performance', 'the belief that training is tailored to the job', and the 'belief that self directed learning is ideal for type of training' were analysed to see whether they exerted an influence on perceived training transfer.

- *It is assumed that sales officers' will have more positive perceptions of training transfer from the 'Managing Customer Complaints Training Module' than the bank tellers.*

- *Although no directional effect was assumed, gender was evaluated to determine whether there it had any relationship with perceptions of training transfer.*

- *Although no directional hypothesis of effect was proposed, the data had potential for determining whether there was any relationship between ethnicity and perceptions of training transfer.*

- *Although no directional hypothesis was posited, analysis was undertaken to determine whether there was any relationship between age and perceptions of training transfer.*

- *It was hypothesised that those newer to the organisation would perceive greater training transfer.*

- *Although no directional relationship was assumed, an opportunity presented to explore whether there was a link between 'time spent in a job position' and perceptions of training transfer.*

- *It was hypothesised that those who believed that training would 'improve job performance' will perceive greater training transfer.*

- *It was hypothesised that those who believed that training was 'tailored to job needs' would perceive greater training transfer.*

- *Although no directional hypothesis was formulated, data permitted the exploration of whether participants' beliefs of 'self-directed learning' would influence perceptions of training transfer.*

Overall, no main effects or interaction effects emerged for any of the background characteristics within the sample. Analysis consistently identified a significant main effect for the 'treatment condition'. These findings highlight that fact that the only significant predictor in this set of variables for perceived training transfer is the treatment condition. Thus, significant effects detected through inter-group comparisons are likely to reflect the fact of training transfer; in spite of statistical cautions (Cf. Chapter 7). No hypothesis regarding the influence of extraneous factors (such as age and gender) was supported.

Having established that the training intervention lead to successful skill acquisition and transfer, the study proceeded to explore dimensions that potentially facilitated or hindered transfer of training.

The Influence of the Intervening Condition on Perceived Training Transfer

A total of 16 factors grouped into four theoretically proposed sources of influence from Holton et al (1997) LTQ were tested to determine their explanatory power of perceived training transfer. The results are reported for four standard entry sub-scales included a *Trainee Characteristic Scale* (2 factors), *Motivational Scale* (3 factors), *Work Environment Scale* (7 factors), and an *Ability Scale* (4 factors). The idea here was to determine the collective contribution each scale of the LTQ made to the prediction of perceived training transfer. Regression analysis was used to identify the best individual predictor of perceived training transfer from each of the four sub-scales of the LTQ. Those that emerged as most predictive from the stepwise regression for perceived training transfer were subsequently entered into a hierarchical regression model according results obtained from a stepwise regression and their theoretical importance as proposed by the literature. The hierarchical regression model also shed some light on the degree to which the present data replicates findings obtained by Holton (1996), Holton et al's (1997).

Collective & Relative Predictive Power of 'Trainee Characteristics'

- *It was hypothesised that participants with more positive Trainee Characteristic (including higher Learner Readiness and Performance Self-Efficacy) would perceive greater training transfer from the 'Managing Customer Complaints training Module.'*

- *It was hypothesised that either 'Learner Readiness' or 'Performance Self-Efficacy' from the Trainee Characteristics Scale will demonstrate a systematic, discernable pattern in predicting PTT.*

Multiple regression analysis was used to evaluate the collective contribution made by *Trainee Characteristics Scales* (i.e. *Learner Readiness & Performance Self-Efficacy*) to perceived training transfer. The results of the regression revealed that these variables did not significantly contribute to the prediction of perceived training transfer. Subsequently, no stepwise or hierarchical regression was fitted with either of these two factors to test the second hypothesis, which is unsupported. These results appear to deviate from those reported by Holton et al's (1997) on the basis of the 'Evaluative Research & Measurement Model' (Holton, 1996). In the first instance, *Learner Readiness*, which incorporates the concepts of choice to participate in training, involvement in training design, and an awareness of training goals, represents the trainees level of training preparation (Holton et al., 1997), and its subsequent influence on perceived training transfer. The results also failed to replicate the findings of Hicks & Klimoski (1987), and more recently Baldwin, Magjuka, and Loher (1991) who similarly reported that giving trainees a choice to participate lead to higher pre-training learning motivation and greater post-training learning outcomes.

One explanation for the present findings could be that in both these studies '*Choice to participate'* was investigated as an influence on motivation to learn and learning outcomes. However, in the present context, learning readiness was investigated as a determinant of perceived training transfer, which denotes the maintained application of skills in the job, not just the acquisition of material during training (i.e. learning). In other words, *Learner Readiness* as a function of choice did not emerge as predictive to transfer because it may be more critical around the time of training during

the process of learning in terms of its influence on the motivation to learn. Unfortunately, no study appears to demonstrate a direct relationship between degree of choice and training transfer. The present finding for *Learning Readiness* may have emerged because although important to motivation to learn and learning outcomes, *Learner Readiness* is not a powerful determinant of perceived training transfer.

In terms of 'involvement in training design' influence on *Learner Readiness*, the literature suggests that the latter is expected to affect motivation to learn (Tannenbaum, Mathieu, Salas, & Cannon-Bowers 1991; Holton 1996). However, as with choice to participate, 'participation in training design' may only be critical to training immediately before and after training during learning and acquisition. This latter component of *Learner Readiness* appears to concur with Holton et al (1997) study in which *Learner Readiness* did not emerge as a salient predictor of training transfer.

Contrary to expectations, prompted by the published findings, the second factor in the *Trainee Characteristics Scale*, *Performance Self-Efficacy* also failed to predict perceived training transfer. Embodying the notion of an individual's belief to apply new learning and change their job performance at will (Holton et al., 1997), *Performance Self-Efficacy* has enjoyed strong support in the literature. For instance, *Self-Efficacy* has been shown to influence short-term behavioural change and skill maintenance in the job (Bandura, 1982; Noe, 1986; Latham, 1988; Latham & Frayne, 1989; Gist, Stevens, & Bavetta, 1991; Tannenbaum & Yukl, 1992; Gist, Stevens, & Bavetta, 1991; & Gist, Schwoerer, & Rosen, 1989). More recently, Ford, Quinones, Sego, & Sorra (1992), and Cannon-Bowers et al's (1995) demonstrated that self-efficacy explained learning in training and training transfer. However, Ford et al (1992), Tannenbaum et al's (1991), and Axtell et al's (1996) did not find any correlation between long-term training transfer and self-efficacy, suggesting that self-efficacy may be more important around the time of training. In the current investigation, post-testing occurred at an eight-week interval after training. Although not long-term, this data collected may have been outside the period in which the influence of performance self-efficacy is important for training transfer, resulting in a non-significant contribution to the explained variance in perceived transfer.

Aggregate Predictive Power of 'Motivational Dimensions'

Motivational Dimensions: Sub-Scale of Trainee Characteristics

- *It was hypothesised that participants who have higher motivation (including higher Motivation to Transfer Learning, Transfer Effort –Performance Expectations, Performance – Outcomes Expectations) would perceive greater training transfer from the Managing Customer Complaints training back to their jobs.*

The multiple regression conducted to evaluate the contribution made by the *Motivational Scales* (including the *Motivation to Transfer, Transfer Effort-Performance Expectations,* and *Performance – Outcomes Expectations*) revealed that these scales made a significant, but small contribution of 12.3% to the prediction variance in perceived training transfer. Overall, the result corroborates the trends reported in the literature. Motivation to transfer, involving direction, intensity, and persistence of effort to use trained skills on the job (Holton et al., 1997, 1998) has been shown to be amongst the most predictive factors of training transfer (Axtell et al., 1996; Wexley & Latham, 1981). Facteau, Dobbins, Russell, Ladd, & Kudisch (1992) found that individuals reporting more support from their peers reported more attempts to transfer trained skills. However, Noe & Schmitt (1986) found minimal support linking *'Motivation to Transfer'* to training transfer, although little work in the decade since has meant no further clarification of the relationship between motivation to transfer and training transfer (Cannon-Bowers et al., 1995). Likewise, '*Motivation to Transfer'* did not emerge as a strong predictor of training transfer in Holton et al (1997) work. In this investigation, *Motivation to Transfer* appeared predictive. However, it did not explain a large proportion of variance. This appears to agree with caveats in literature in terms that the contribution of a '*Motivation to Transfer'* variable to transfer is still unclear (Cannon-Bower et al., 1995).

The second sub-factor of the motivational scale, *'Transfer Effort – Performance Expectation'* made the most significant impact on the observed predictive value for perceived training transfer. Literary support for performance expectations has come from Hoiberg & Berry (1978) and Hicks & Klimoski (1987) who suggested that expectations influence post-training attitudes. Froman (1977) and Noe (1986) reported that training expectations were associated with performance in terms that expectations

that good performance will result in desirable outcomes acts to energise incumbents into applying their newly acquired skills at work. More recently, Tannenbaum, Mathieu, Salas, and Cannon-Bowers (1991) who operationalised performance expectations as training fulfilment, discovered that training fulfilment was linked to organisational commitment and training motivation, which in turn influenced motivation to transfer. To identify the level of contribution made by '*Transfer Effort – Performance Expectations'* to the 12.3% predicted variance, a second hypothesis was tested in a stepwise regression as follows.

Relative Predictive Power of 'Motivational Dimensions'

- *It was hypothesised that specific factors within the 'Motivation Scale' (Motivation to Transfer Learning, Transfer Effort –Performance Expectations, Performance – Outcomes Expectations) would demonstrate systematic, relative predictability for perceived training transfer.*

The results of the stepwise regression demonstrated that out of the '*Motivation Scales*,' '*Transfer Effort – Performance Expectations'* is the most significant determinant of perceived transfer accounting for 10.1% of the variance. This result confirms published findings on '*Transfer Effort – Performance Expectations'* as a predictor of perceived training transfer (Cf. Chapter 5 for summary of publicised findings). However, it's importance was more apparent in this investigation than reported in Holton et al's (1997), where it did not emerge amongst the nine most critical factors for transfer.

The last factor in the motivational scale, *Performance - Outcomes Expectations* was significantly predictive of training transfer in an unordered (standard entry) regression, however, it failed to meet the selection criteria for a stepwise regression and was eliminated from the regression model. This result contrasts with those reported in the literature. Authors like Tannenbaum, Mathieu, Salas, & Cannon-Bowers (1995) have found a relationship between performance and post-training motivation. However, empirical evidence is relatively meagre. Most authors only suggested causal mechanisms and relationships (Vroom, 1964; Baldwin & Ford, 1988; Noe, 1986; Noe & Schmitt, 1986; Clark, Dobbins, & Ladd, 1993, & Gregoire et al., 1998). Given the lack of empirical findings, it is difficult to explain why '*Performance – Outcomes Expectations'* did not predict transfer to any great extent. One explanation may come

from the manner in which '*Performance – Outcomes Expectations'* was conceptualised and operationalised. It could be that both '*Transfer Effort- Performance Expectations,'* and *'Performance – Outcomes Expectations'* make an non-significant contribution to transfer in the motivational scale because they are associated with the *Motivation to Transfer*, thus they explain no more than has been explained by '*Motivation to Transfer*.'

Collective Predictive Power of the 'Work Environment'

The work environment (transfer climate) was made up of seven factors proposed to influence training transfer. These factors, also described as situational constraints, act to affect work performance (Peter, O'Conner, & Eulberg, 1985). The influence of these types of factors is considered in the next section.

- *It was hypothesised that participants who have more positive perceptions of the 'Work Environment' (including higher ratings across Feedback/Performance Coaching, Supervisory/Manager Support, Supervisor/Manager Sanction, Peer Support, Resistance/Openness to Change, Personal Outcomes – Positive, Personal Outcomes – Negative) would perceive greater training transfer from the Managing Customer Complaints Training module.*

The standard entry regression revealed that the *Work Environment Scales* (including, *Feedback/Performance Coaching, Supervisory/Manager Support, Supervisory/Manager Sanction, Peer Support, Resistance/Openness to Change, Personal Outcomes – Positive, & Personal Outcomes – Negative*) collectively explained 39.2% of the variance in perceived training transfer. This result coincides with Rouiller and Goldstein's (1993) who reported that transfer climate enhanced post-training work performance significantly after controlling for learning. In a partial replication, Tracey (1992) found that transfer climate explained a significant proportion of the variance in training transfer. On closer inspection, *'Supervisory/Manager Support'* emerged as the most significant prediction of perceived training transfer, with *Feedback/Performance Coaching* and *Resistance/Openness to Change* making less, but important contribution to the significance of the predictor value.

'Supervisory/Manager Sanction' did not make a significant contribution to perceived training transfer. These findings oppose the results of other empirical investigations. Bahn (1973) suggested that supervisory resistance to training can be traced to a failure to include all levels of workers in training, as well as the belief that the training department does not really know what conditions are like on the job. This can become a disincentive to effective employee training such that supervisors do not accept the practices taught in training (Bahn 1973; Salinger, 1973). Two decades later, Holton et al's (1997) analysis revealed that *'Supervisory/Manager Sanction'* was amongst the seven most predictive factors of perceived transfer from the 16 he investigated. However, *'Supervisory/Manager Sanction'* did not emerge as important in this study. One explanation for this may stem from the nature of the given bank's work environment. Specifically, supervisors may restrain themselves from sanctioning training if they regard training as beneficial to the subordinate's jobs. Alternatively, the fact that training was an in-house initiative could have lead to greater supervisory supportive and less or no supervisory sanction, especially given that training was linked to incumbents job descriptions and performance appraisals.

'Peer Support' did not contribute significantly to the prediction of perceived training transfer value within the work environment. The literature suggests that peer support is important for interactions between peers in that it provides reinforcement to learn during training, and subsequently for applying what was learned in training to the job (Latham & Crandall, 1991). Tziner et al (1991) suggested that trainees would be more likely to transfer if they perceived that their peers are supportive of, and patient with, the use of newly learnt skills. Research has found that individuals who receive peer support will have higher self-efficacy and superior copying mechanisms for job changes including the application of new skills at work (Evans, 1963; Latham & Crandall, 1991). In a meta-analysis Slavin (1983) found that participation in peer groups for co-operative learning increased training effectiveness. Saxe (1988) added further support when he revealed that trainees who engage in peer interaction perform significantly better than those without peer interaction. In a 'buddy study', which established support networks to exchange ideas and practice skills, Tannenbaum & Yukl (1992) found that those within such groups transferred more. Many other authors have commented and shown that peer support occupies a social support role of the work environment that influences

training transfer (Tziner et al., 1991; Guthrie & Schwoerer, 1994; Kozlowski & Doherty, 1989; McDonald, 1991; Baldwin & Ford, 1988; Weir, 1999).

The unexpected result in this study may be due to the characteristics and nature of the work setting. The type of work bank tellers and sales officers is not team-oriented, so the need to rely on colleagues is reduced. A second explanation may stem from the way training was delivered. Trainees were expected to undertake the training o their own, in their own time, at their own pace. As an individual exercise, trainees within any given branch would be at different stages through their training. Consequently, the training as an individually designed intervention was not group-oriented, thus trainees would be less likely to corroborate on training materials and activities. Alternatively, the emphasis in the training program was to develop one's own set of solutions and strategies to managing customer complaints.

Contrary to expectations, neither *Personal Outcomes – Positive,* or *Personal Outcomes – Negative* had a significant influence on perceived training transfer. These factors were among the most predictive in Holton et al's (1997) investigation. Rouiller and Goldstein (1993) referred to these sub-factors as positive and negative feedback, in a scale called 'Consequences'. Rouiller and Goldstein's (1993) conceptualisation of the factors is similar to that used in this study. Results from Rouiller and Goldstein (1993) revealed that these factors added significantly to the variance in transfer behaviour. It is possible that these factors (*Personal Outcomes – Positive, and Personal Outcomes – Negative*) did not emerge as significant in this study because of the time at which the post-test data was collected. In Rouiller and Goldstein (1993) study, positive and negative feedback data were collected three months after training, but only two months in this study. It may be that the influence of these types of factors comes into effect at a period outside the data collection period used in this study, and therefore its effect were undetected at the time of data collection. This assumption would seem to concur with the findings of Ford, Quinones, Sego, and Sorra (1992) who found an effect for consequences from training on transfer four months after training.

Comparative Predictive Power of 'Work Environment Scales'

To further determine the size (and significance) of the contribution of the strongest predictors found with the standard regression, a stepwise regression was used to examine the following hypothesis.

- *It was hypothesised that specific factors of transfer conditions within the Work Environment Scales (Feedback/Performance Coaching, Supervisory/Manager Support, and Resistance/Openness to Change) would show a systematic, discernable pattern in predicting perceived training transfer.*

Results indicated that *'Supervisory/Manager Support'* is the most salient contributor to the prediction of perceived training transfer within the work environment (transfer climate) by accounting for 28.9% of the variance. Two other factors had a less, but significant influence on transfer. *Feedback/Performance Coaching* added an additional 3%, while *resistance/openness to change* added 3.6% to the explained variance.

The results obtained support those in the literature linking *Supervisory/Manager Support* to training transfer (Rouiller & Goldstein, 1993). Holton et al's (1997) demonstrated that supervisory support was the most salient predictor of transfer in his study. According to Marx (1982), reinforcement from the supervisor is particularly important during the initial phase of transfer. At this stage, supervisors can help trainee's to maintain and generalise newly learnt behaviours. Sims & Manz (1982) found that supervisors providing modelling had a powerful effect on behavioural change. Supervisory support to apply new learning has consistently been found to influence transfer of training. For instance, Fleishman (1953) illustrated how trainees with supportive supervisors more effectively transferred leadership concepts to the jobs compared to those with unsupportive supervisors. Taylor (1992) found supervisory support to be an important predictor of training transfer. Similarly, Komaki et al (1980) and Garavaglia (1993) provided strong empirical support for the influence of positive supervisory support on transfer maintenance, while Gregoire et al (1998) found that an increase in perceived supervisory support lead to an increase in training effectiveness. Meuse (1985) reported that those who perceived greater supervisory support were more likely to participate in training, particularly newer and less senior employees. While

Huczynski & Lewis (1980), and Tziner, Haccoun & Kadish (1991) demonstrated that supervisory support for training was linked to trainees' intentions to transfer new skills. More recently, Gregoire et al's (1998) reported that supervisory support was associated with a perceived increase in the impact of training on trainees.

In a New Zealand study, McSherry & Taylor (1994) moved beyond the global concepts of supervisory support used in previous literature and this study. They provided further evidence to the importance of supervisory support to transfer of training. In addition, they identified specific supervisory behaviours that predict transfer of training.

Feedback/Performance Coaching (organisational support) made a small but significant contribution to predicting transfer. This result supports Russell, Terborg, & Powers (1985) who reported a correlation between organisational support and training with job performance. Rynes & Rosen (1995) demonstrated that organisational support was an important moderator in training success. Taylor (1992) found organisational support to be important to training transfer, although a slightly less important predictor than supervisory support. It may be that in the *Feedback/Performance Coaching* did not emerge as significant to transfer because it was acting through, or was superseded by, supervisory support. An incumbents' immediate manager/supervisor occupies a position of authority within the hierarchy of an organisation. Therefore, the supervisor embodying the organisation is in a position to reinforce and give feedback on behalf of the organisation regarding acceptable behaviour (Bahn, 1973; Marx, 1982; Salinger, 1973).

As suggested by Bunker and Wijnberg (1985) the supervisor represents for the organisation a medium through which it can process actions; therefore, supervisors are key control points in determining employees' work experiences. For instance, supervisors may provide differential opportunities to perform trained tasks on the job dependent on their attitude to training and their perceptions of the trainee (Ford et al, 1992). Curry (1994) suggested that the value placed on training by supervisors can affect trainee attitudes towards training.

Resistance/Openness to Change showed small but significant contribution to predicting transfer in the current analysis. *Resistance/Openness to Change* was amongst the seven most salient predictors from Holton et al's (1997) investigation. As a component of the work environment (transfer climate) *Resistance/Openness to Change* has typically been articulated as peer sanction. Saxe (1988) reported that trainees who engage in peer interaction perform significantly better in training than those without peer interaction. More recently, Ford et al (1992), Goldstein (1986), and Tziner et al (1991) suggested that workgroup support was an important component in a 'climate for transfer' because it allows individuals to feel more comfortable to utilise new skills. Those without such support or within a work group that discouraged the use of new learning were less likely to transfer their training. Evans (1963), Latham and Crandall (1991) suggest that individuals who have greater peer support from co-workers will have higher self-efficacy and superior copying mechanisms for job changes than those without peer support. In this investigation, *Resistance/Openness to Change* emerged as more critical to transfer than peer support. Further research is needed to clarify the mechanisms underlying this relationship.

Composite Predictive Power of the 'Ability Scales'

Ability Scale: A Sub-Scale of the Work Environment

- *It was hypothesised that participants with more positive perception on the 'Ability Scales' (Opportunity to Use Learning, Personal Capacity for Transfer, Perceived Content Validity, and Transfer Design) would perceive greater training transfer.*

A standard entry multiple regression was calculated to assess the collective contribution of factors within the *Ability Scales* (including *Opportunity to Use New Learning, Personal capacity for transfer, Perceived content validity, and Transfer Design*). It was shown that these factors explained 24.6% of the variance in perceived training transfer. Within the *Ability Scale*, *Perceived Content Validity* contributed most significantly to the prediction of perceived training transfer. A lesser but still quite important contribution was made by *Transfer Design.* The remaining two variables from the *Ability Scales, Opportunity to use Learning*, and *Personal Capacity for Transfer*, did not significantly influence perceived training transfer.

Perceived Content Validity was strongly predictive of perceived training transfer. This result coincides with the literature where content validity has frequently been referred to as training relevance. Authors such as Kothurkar (1985), Goldstein (1986), and Baldwin and Ford (1988) have commented that the more meaningful the learning material to the trainee, the higher the probability of the learning, retention, and application in the work setting. Investigations by Goldstein (1986), Mathieu et al's (1992), and Axtell et al's (1996) similarly reported that trainees who perceived their training as relevant to their jobs were more committed to learning in training and transfer. Tannenbaum & Yukl (1992) demonstrated that establishing a link of relevance between training and the work setting is important to reduce resistance to training, and increase training credibility.

Transfer Design was predictive of training transfer; corroborating the hypothesis and lending support to previously published findings. In this study *Transfer Design* related to the degree to which training matched the job requirement of trainees, including needs analysis, links to reward systems, and the use of learning principles (Cf. Chapter 3, pp. 31). Research has demonstrated that needs analysis (Goldstein, 1991, 1993; Landy, 1989; Quinones & Ehrenstein, 1996), the use of the learning principles (Baldwin & Ford, 1988; Latham & Crandall, 1991), and the use of post-training strategies can facilitate transfer. For instance, goals setting (Feldman, 1981; Anderson & Wexley, 1983), relapse prevention (Marx, 1980; Noe, 1986), and behavioural self-management (Luthan & Davis, 1979; Gist, Stevens, & Bavetta, 1991) can be used to assist in training transfer. The results were also confirmed by interviews with the training facilitator who indicated that training was based on incumbents' job descriptions, and training outcomes linked to trainees' performance appraisals. However, no needs analysis was conducted and this may explain the small amount of variance explained by this factor. For instance, the neglect of a needs analysis may have lead to a training intervention that was not as closely matched to trainees, organisational, or job needs as it could have been. Consequently, training was less meaningful to trainees in terms of their job duties and functions (Goldstein, 1985, 1993).

Opportunity to use Learning failed to add significantly to the explained variance of training transfer. This is in contrast to the literature portraying perceived opportunity as important to training transfer (Baldwin & Ford, 1988; Goldstein, 1986; Wexley &

Latham, 1991). *Opportunity to use Learning* has been reported to facilitate when present, or inhibit when withdrawn, transfer of training (Facteau et al, 1995; Peters & O'Connor, 1980; & O'Connor & Rudolf, 1980). Often associated with practice, *Opportunity to Use Learning* can improve training effectiveness. For instance, the more times the trainee performs the new skills, the more their performance will improve (Ackerman & Humphreys, 1990). Opportunity to use learning has been linked with other social factors from the work environment including supervisory support, workgroup support, and pace of workflow (Baldwin & Ford, 1988). Ford et al (1992), Tannenbaum and Yukl (1992), and Garavaglia (1993) suggested that trainees gain confidence in their ability to perform their new skills when they are given the opportunity to practice and rehearse new skills on the job. These suggestions have been supported by researchers such as Fendrich, Healy, Meiskey, Crutcher, Little, and Borne (1988) who demonstrated that a lack of opportunity to utilise trained skills in the job led to a performance decrement. Ford, Quinones, and Sorra (1992) found that trainees who perform similar jobs may experience significantly different opportunities to apply recently learned skills on the job. Thus for some trainees their work environment can act to constrain their ability to transfer. Finally, Robertson & Downs (1979, cited in Noe, 1986) estimated that 16 percent of the variance in trainee performance can be attributed to ability. Present results are in contrast to evidence presented by these authors. The result obtained may have emerged because of the nature of the trained tasks. The course, which focused on 'managing customer complaints', was not dependent on the provision of opportunities to practice because a customer complaint is something that is not under the provisional control of the organisation. Consequently, customer complaints and the resources to manage them were within the control of the employee who used internal resources and waited for complaint opportunities to arise in the job context. In other words, the bank could not provide a customer complaint opportunity to employees.

Personal Capacity for Transfer was a non-critical intervening factor for perceived training transfer. Consequently, the provision (or otherwise) of time, mental energy in individuals' work schedules did not predict whether training was effective. This result may be explained by the nature of the trained task. For instance, trainees were expected to complete training on their own at their own pace, and in their own time. Therefore, the issue of adjusting work schedules, time, and personal energy did not arise. The result is unsurprising, given that personal capacity for transfer did not emerge as a

salient predictor of transfer in Holton's et al (1997) study either. No other investigation was found to report this factor as a predictor of perceived training transfer.

Respective Predictive Power of the 'Ability Scales'

As the next stage of analysis, the explanatory powers of the factors within the Ability Scale were tested in a stepwise regression to evaluate their individual contribution to training transfer.

- *It was hypothesised that specific factors of transfer conditions from the 'Ability Scales' (Perceived Content Validity, and Transfer Design) would demonstrate a systematic, discriminative difference in their relative influence on PTT.*

Results showed that the *Perceived Content Validity* of training contributed a highly significant 19.6% contribution to the prediction of perceived training transfer from the *Ability Scale*. This indicating that *Perceived Content Validity* is the most important contributor to the prediction of perceived training transfer for *Abilities Scales* of the learning transfer questionnaire. *Transfer Design* added an additional 4.1% to the explained variance. This result demonstrates that perceived content validity or training relevance is a highly important issue influencing training transfer for those within the researched organisation.

Theoretical Relationship between Intervening Conditions & Perceived Training Transfer

- *Following Holton et al's (1997), it was hypothesised that specific intervening conditions (out of the entire set of explanatory scales) would be more predictive of perceived training transfer. Specifically, and in order, Supervisory Support, Opportunity to Use Learning, Peer Support, Supervisory Sanction, Personal Outcomes – Positive, Personal Outcomes – Negative, Resistance/Openness to Change, Perceived Content Validity and Transfer Design were assumed to appear as the most salient explanatory factors of PTT (Holton et al., 1997).*

In order to establish the relative importance of sub-scales as predictors, a hierarchical regression model was specified. Moreover, previous research had suggested that some of explanatory variables from Holton et al (1997) LTQ are more salient predictors of

perceived training transfer than others. Factor were entered into the model according to the literature which suggested the following order: *supervisory support, opportunity to use learning, peer support, supervisory sanction, personal outcomes – positive, personal outcomes – negative, resistance/openness to change, perceived content validity and transfer design* were salient explanation of perceived training transfer (Holton et al, 1997). Despite been salient predictors in the literature, *peer support, supervisory sanction, personal outcomes – positive, personal outcomes – negative* were excluded from the hierarchical model because they failed to meet the selection criterion in the stepwise regression models. However, two new variables, *transfer effort – performance expectations*, and *Feedback/Performance coaching* emerged as salient predictors in this sample, unlike in Holton et al's (1997), where they did not. Initially, *Supervisor/Manager Support* was entered, followed by, *Perceived Content Validity, transfer design, Resistance/Openness to Change, Transfer Effort – Performance Expectations,* and *Feedback/Performance Coaching.*

The first model with six variables revealed that *Supervisory/Manager Support* was the most significant predictor of perceived training transfer accounting for 28.9% of the variance in training transfer. Next, *Perceived Content Validity emerged* as a *significant predictor* explaining an additional 7.1% of the variance in perceived training transfer. *Transfer Effort – Performance Expectation* added 3.1% to the variance, although it was not a significant influence. The final hierarchical model revealed a two-factor solution with *Supervisory/Manager Support* and *Perceived Content Validity* accounting for 36% of the variance in perceived training transfer. This result agrees with much of the literature regarding the importance of supervisory support to transfer (Byham, Adams, & Kiggins, 1976; Huczynski & Lewis, 1980; Baldwin & Magjuka, 1991; Komaki, Heinemann, & Lawson, 1980; Baldwin & Ford, 1988; Tannenbaum & Yukl, 1992; Tziner et al., 1991; Noe, 1986; Curry et al., 1994; McSherry & Taylor, 1994; Latham & Crandall, 1991; McSherry & Taylor, 1994; Goldstein, 1985; Huczynski & Lewis, 1980; Tziner, Haccoun, & Kadish, 1991; Taylor, 1992; Latham & Crandall, 1991). It also demonstrates that supervisory support is an important issue for employees of the researched bank and New Zealand organisations in general. Although important in the literature, *Perceived Content Validity* did not feature in Holton et al's (1997) final solution of predictors. In this study, *Perceived Content Validity* is obviously a critical consideration for training and transfer.

Methodological Limitations

The main line of analysis was to estimate relative explanatory predictive power of a series of constructs (intervening conditions) on perceived training transfer (as a dependent variable). A convenient way of estimating is ANOVA and Regression analysis. Given that both types of parametric procedures require a quasi-continuous dependent variable (or at least a variable at the interval level of measurement) it was necessary to 'transformation' discrete data (derived from a Likert-scales) to a more continuous form. Conservatively, five-point Likert scales can be seen as yielding item variables at the ordinal level of measurement. Normally distributed continuous data are more suited to most multivariate techniques, especially if they are based on a correlation matrix, and elementary levels of measurement criteria for correlations must be met (Tabachnick & Fidell, 1989; Hair et al, 1998). Discrete, category or ordinal variables can also be used in multivariate procedures, although intermediate steps are required (Tabachnick & Fidell, 1989; Hair et al, 1998). In order to approach more continuous variables, higher-order indices were computed from item variables. A problem arises in that the smoothing effect can affect the variance if the data are far from normally distribution (Hair et al., 1998). Screening demonstrated that these concerns were not serious in this investigation. The need to work with variables at the interval level of measurement also followed from demands of regression analysis for the dependent variable (Coakes & Steed, 1999).

Kenny (1975), and more recently Gardner & Neufeld (1987), and Dugard & Todman (1996), reported that quasi-experimental design used to assess treatment effects with pre- and post-test measures and non-equivalent control group design (with biased assignment) creates a confound for which change (difference) statistical techniques should be used. Dugard & Todman (1996) go on to state that change score analysis using ANOVAs are unsatisfactory for testing differences between groups in a pre- and post-test design. As an alternative, both Kenny (1975), and Dugard & Todman (1996) advocate the use of analysis of covariance (ANCOVA). Kenny (1975) additionally suggests that analysis of covariance with reliability corrections, raw change score analysis, and standardized change score analysis is appropriate for biased assignment. The neglected use of these techniques in this study should be noted by researchers who plan to use similar designs, which are readable accessible on most statistical packages today (e.g. Minitab, SAS, SPSS).

Change scores (differences score) are less reliable than single scores because, *'the error of measurement on each test contribute to the error variance in the difference scores, and the true variance that the two tests measure reduces the variance of the difference score'* (see Thorndike & Hagen, 1977, pp. 98-100, cited in Mehrens & Lehmann, 1991). In this study reliability coefficients were not calculated for the change scores of the dependent variable, only on the pre- and post-test scores. This oversight can be remedied through simple statistical procedures whereby reliability can be calculated for the difference scores if the two tests have equal variance (Mehrens & Lehman, 1991; Thorndike & Hagen, 1969). For further explanation of correctional procedures, refer to the cited authors.

The sample size in this investigation restricted choice of statistical options, especially the multivariate procedures performed. Given the response rate, care had to be taken in the construction of dependent variables, and in particular the highest-level composite used in the regression analysis. Such care was needed to avoid the type I and type II errors resulting from inflated variance upon which regression is reliant.

Sample size can affect the confidence intervals of inferential statistical tests such as multiple regression. In this investigation, the sample size met the minimum requirements, although a larger sample is desirable if one is to increase confidence intervals. Moreover, in smaller sample sizes the assumptions of multivariate normality and so forth become more critical, whereby the occurrence of violations can lead to type I or type II errors (Greene & D'Oliveira, 1999).

Given that a large proportion of the executed sample were women of Pakeha descent in their mid to late 30s', and the low overall response rate (26.8%), the representativeness of the sample of the population is questionable. If the sample was not representative of employees, the present findings cannot be generalized beyond those who actually responded.

Instrumentation was adequate but the number and length of questionnaires used may have been prohibitive to participant response rate. It is recommended that investigators contemplating field-based research (in 'real life conditions') in organisational context, particularly the private sector, should attempt to limit the

demands placed upon participants.

Because Holton et al's (1997) LTQ is essential a measure of the organisational transfer climate, the degree to which it can be generalised extends only as far as the sample from which it was derived. Therefore, the findings in this research can only be applied to of the organisation studied, although the findings do highlight important issues for other organisations. The reason for this limitation rests on the manner of it's conceptualisation as outlined in Chapter 3. Therefore, given that transfer climate was identified as one aspect of specific organisational climate arising from incumbents psychological climate (James & James, 1989) within the organisation under investigation, the bounders of generalisation for the results obtained here extend as far as employees only. For further information of transfer climate in this investigation refer to Chapter 4.

A basic assumption of the research is the demarcation between the control and treatment groups. Some contamination may have occurred. This possibility is based on the assumption that a large organisation like the ANZ requires communication both laterally and vertically amongst stuff in order to function competitively. Consequently, new ideas and approaches learnt in training filter through the organisational systems of communication, both formal and informal channels. In such instances, members of what was defined as the control group may have been exposed to material taught in training. If so, then the significance of inter-group comparisons is remarkable (refer Chapter 7).

Although a qualitative component was included to corroborate the findings from the quantitative data, response to the relevant questions was infrequent and lacking in detail. These questions were 46, 47, and 48 from questionnaire four for the trained group, and included:

1. *In terms of work, what impact has the managing customer complaints training had? Please specify briefly.*

2. *What role(s) has your supervisor played since your completion of the managing customer complaint module? Please specify briefly.*

3. *What role(s) has your work group played since your completion of the managing customer complaint module? Please specify briefly.*

Question 1 would have been useful through its potential provision of

corroborating qualitative data to the quantitative questions. Additionally, this information could have provided insight beneficial to the interpretation of the quantitative results. Questions 2 and 3 were included to supplement the response to the Learning Transfer Questionnaire (LTQ). Question 2 was also designed to build a list of supervisory support behaviours. The aim was to generate a list of supervisory support behaviours to supplement the global perspective taken by the LTQ on supervisory support. Specific supervisory support behaviours could have been identified within the work environment that influenced transfer. Such information would be beneficial for diagnosis and developing prescriptive strategies against inhibitory work environments, and for comparison with McSherry (1992) in which specific supervisory support behaviours were investigated for their influence on training effectiveness. Question 3 was included to reveal support behaviours. Unfortunately, a poor response rate meant that the data was less insightful than anticipated. If the response had been more favourable, specific peer support behaviours for transfer could have been identified, although the perceived peer support variables was not predictive of PTT in this study.

Objective data on trainees pass rate for the training course from an internal examination was unavailable to the investigator, although trainees' were asked to indicate their level of success on that exam in Questionnaire 4. Therefore, the researcher was reliant on the honesty of respondents rather than a more objective measure such as the actual exam results.

Recommendations

The findings from this investigation highlight the need for a shift in thinking about training design and delivery. Training facilitators need to broaden their design perspective to include factors within the trainee and the trainee's work setting (transfer climate) that can potentially affect training effectiveness. This could be achieved through the adoption of thorough needs analysis to ensure training is both needed and relevant to the organisation and employees undertaking training. Echoing the suggestions of Bahn (1973), there is a need to include all levels of the job in training design. A first step would require a job analysis in order to identify the duties and functions of incumbents. This would facilitate an accurate 'task analysis' in order to identify the nature of job tasks and the knowledge, skills, abilities, and other personality and motivational attributes required to perform a job (KSAO's) (Landy, 1989).

Organisational analysis is required to identify the organisational goals, resources, and the state of the work environment (Goldstein & Buxton, 1982; Goldstein, 1991). Finally, a personnel analysis would facilitate the identification of individuals who need training, and the training needed (Muchinsky, 1993). The benefits of a thorough needs analysis is that the reality of the job, work conditions, and trainees' attributes can be included in training design to make training more relevant and effective. Literature support is exemplified by Salinger (1973) who reported that the more relevant the training, the greater the chance of supervisory support and trainee commitment to training. Perhaps needs analysis itself needs to be broadened to include an awareness of strategies to manage specific influences on training transfer within any given work setting. Strategies to facilitate transfer already exist (including goal-setting, Behavioural Self-management, and relapse prevention), although they have been neglected in training and post-training on the job (Baldwin & Ford, 1988; Quinones & Ehrenstein, 1997). It is recommended that training facilitators should contemplate the influence of the individual trainees' characteristics as well as their work setting and respond to them by incorporating strategies to increase the probability of training transfer.

Future Research

Given that supervisory support emerged as the most salient predictor of perceived training transfer, studies similar to McSherry and Taylor (1992, 1994) should be conducted to map the impact of specific supervisory support behaviour influence on training transfer. Through the identification of specific supervisory support behaviors practitioners, training providers, and organisations would be in a position to diagnosis and prescribe strategies for decreasing situational constraints, such as supervisory sanction, to training transfer.

Research into training transfer is plagued by the multitude of ways in which the transfer phenomenon is conceptualised. Following, the reasoning of Baldwin and Ford (1988) and more recently Holton et al (1997), it is suggested that greater coherence regarding the meaning of terms and process of transfer would be commendable. One such attempt has been made by Garavaglia (1996) who proposed the 'Transfer Design Model' discussed in Chapter 3. Recently, Holton (1996) guided by the literature suggested an operational framework and instrumentation for assessing training transfer.

Conducting research in the private sector presented unique challenges in terms

that the researcher had to become somewhat of a salesperson. When working with an organisation in this context, the organisation regards the research enterprise as an investment of their resources. Consequently, the nature of the research had to be modified to suite the desires of the participant organisation: this lead to changes that could ultimately affect validity and reliability. For instance, the time frame and delivery of questionnaires was guided by the requests of the organisation, which run counter to suggestion in the research, whereby true transfer does not occur until 4 to 6 months to a year after training (Baldwin & Ford, 1988; Rouiller & Goldstein, 1993). It would be wise for future investigators to work more closely with organisations to find some middle ground between the practical limits of the organisation and the requirements of investigations.

The results of the present study only partially support Holton et al's (1997) findings, thus further replication of his 'intervening conditions' using the 'Evaluative Research and Measurement Model' is advocated. Work is also needed to reduce the number of explanatory factors given that many failed to be significantly predictive and given that many may overlap in their conceptual coverage. For instance, Tannenbaum et al (1991) found links between motivation to learn and motivation to transfer. Maybe they are the same phenomenon, only differing in the time at which they are critical to training effectiveness. As stated by Cannon-Bower et al (1995) more work is need on motivation in order to determine its importance to other influences on transfer and training transfer.

Some factors emerged as critical, while others unimportant in this study, deviating from findings in published literature, indicates that a factor's importance to training effectiveness may be a matter of not only the nature of the factor, but of the time scale of effect as well. For instance, research had shown that learner readiness and performance self-efficacy is more crucial around the time of training for motivation to learn. Therefore, the researcher needs to be aware of the time at which he/she chooses to collect data if they wish to detect the influence of that factor on training transfer.

The lack of literature makes it apparent that additional research is needed with diverse types of training interventions and work settings in order that the influence of the work environment and trainee characteristics on different types of skills and

knowledge can be identified. Finally, researchers need to continue to examine the relationship between transfer climate and its influence on trainee characteristics. There is a need to identify the underlying causal mechanisms of training transfer. Questions still surround the direction of the influence and whether or not transfer climate and or trainee characteristics directly influence transfer or whether they work through one or other, or through some yet unknown influence.

General Conclusion

In conclusion, the present study undertook to investigate the influence of factors within the work setting and the trainee on perceived training transfer. The results lent partial support to the influence of the intervening conditions previously described by Holton's (1996) model. It is evident that supervisory support and perceived content validity are the most critical determinants of perceived training transfer. Other factors which emerged as critical, but less important included trainee expectations of the training intervention, which has been linked to perceived content validity in the literature; organisational support (feedback/performance coaching) linked to supervisory support; transfer design; and peer sanction (resistance/openness to change). The findings demonstrated that social support factors within the work environment are amongst the crucial determinants of perceived training transfer. Organisations need to foster appropriate transfer climates if they are to realise the ambitions of their training interventions.

REFERENCES

Ackerman, P. L., & Humphreys, L. G. (1991). Individual differences theory in industry and organisational psychology. In M. D. Dunnette & L. M. Hough (Eds.), *Handbook of Industrial and organisational psychology (Vol. 1, pp. 223-282). Palo Alto CA: Consulting Psychologist Press.*

Adams, J. A. (1987). Historical review and appraisal of research on the learning, retention, and transfer of human motor skills. *Psychological Bulletin, 101(1), pp. 41-74.*

Adams, J. A. (1968). Response feedback and learning. *Psychological Bulletin, 70(6), pp. 486-504.*

Alliger, G. M. & Janak, E. A. (1989). Kirkpatrick's levels of training criteria: Thirty years later. *Personnel Psychology, 42, pp. 31-341.*

Anderson, J. (1976). Giving and receiving feedback. In P. R. Lawrence, L. B. Barnes, & J. W. Lorsch (Eds.), *Organisational behavior and administrative (3rd ed., pp. 103-109).* Homewood, IL: Dow Jones-Irwin.

Anderson, J. R., & Bower, G. H. (1973). *Human Associative Memory.* Wiley, NY.

ANZ (1998). Managing customer complaints Training Module. *ANZ Self Development Module for the Sales Accreditation Framework.*

Arnold, J., Robertson, I. T., & Cooper, C. L. (1991). *Work Psychology.* Pitman; London.

Atwater, S. K. (1953). Proactive inhibition and associative facilitation as affected by degree of prior learning. *Journal of Experimental Psychology, Vol. 46, pp. 400-404.*

Axtell, C. M., & Maitlis, S. & Yearta, S. K. (1996). Predicting immediate and longer-term transfer of training. *Personnel Review, Vol. 26(3), pp. 201-213.*

Bahn, C. (1973). The countertraining problem. *Personnel Journal, Vol. 28, pp. 1068-1072.*

Baldwin, T. T. & Magjuka, R. J. (1991). Organizational training and signals of importance: Linking pre-training perceptions to intentions to transfer. *Human Resource Development Quarterly, 2, pp.* 25-36.

Baldwin, T. T., Magjuka, R. J., & Loher, B. T. (1991). The perils of participation: Effects of choice of training on trainee motivation and learning. *Personnel Psychology, 44, pp. 51-65.*

Baldwin, T. T. & Ford, J. K. (1988). Transfer of training: a review and directions for future research. *Personnel Psychology, 41, pp.* 63-105.

Baldwin, T. T. (1987). *The effect of negative models on learning and transfer from behavior modeling: A test of stimulus variability.* Presented at the 47th annual meeting of the Academy of Management, New Orleans, LA.

Bandura, A. (1989). Self-regulation and motivation and action through internal standards and goal setting. *In Pervin, L. A. (Eds.), Goals concepts in personality and social psychology (pp. 19-85). Hillsdale, NJ: Erlbaum.*

Bandura, A. (1986). *Social Foundations of Thought and Action.* Englewood Cliffs, NJ: Prentice-Hall.

Bandura, A. (1982). Self-efficacy mechanisms in human agency. *American Psychologist, Vol. 37, pp. 122-147.*

Bandura, A. (1977a). *Social learning theory.* Prentice-Hall: Englewood Cliffs, NJ.

Bandura, A. (1977b). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review, 84, pp. 191-215.*

Baumgartel, H., Sullivan, G. J., & Dunn, L. E. (1978). How organizational climate and personality affect the payoff from advanced management training. *Kansas Business Review, Vol. 5, pp. 1-10.*

Baumgartel, H., & Jeanpierre, F. (1972). Applying new knowledge in the back-home setting: A study of Indian managers' adoptive effort. *Journal of Applied Behavioural Science, Vol. 8(6), pp. 674-694.*

Bayham, W. C., Adams, D., & Kiggins, A. (1976). Transfer of modeling training to the job. *Personnel Psychology, Vol. 29, pp. 345-349.*

Beyer, J. M. & Trice, H. M. (1987). How an organization's rites reveal its culture. *Organizational Dynamics, Vol. 15(4), pp. 4-24.*

Blum, M. L., & Naylor, J. C. (1968). *Industrial psychology: Its theoretical and social foundations*. Harper Row, NY.

Bretz Jr., R. D. & Thompsett, R. E. (1992). Comparing Traditional and integrative learning methods in organizational training programs. *Journal of Applied Psychology, Vol. 77(6), pp. 941-951.*

Briggs, G. E. & Naylor, J. C. (1965). Team versus individual training, training task fidelity, and task organization effects on transfer performance by three-man team. *Journal of Applied Psychology, Vol. 49, pp. 387-392.*

Broad, M. L. & Newstrom, J. W. (1992). *Transfer of Training: Action-packed Strategies to Ensure High Payoff from Training Investments.* Addison-Wesley: New York.

Broad M. L. (1982). Management Actions to Support Transfer of Training. *Training and Development Journal, May, pp. 124-129.*

Brook, J. A. & Collinson, C. A. (1997a). *A Study of the Transfer of Training: From the Tertiary Setting to the Corporate Environment: 6.* Report to Accident Rehabilitation and Compensation Insurance Corporation.

Brook, J. A. & Collinson, C. A. (1997b). *A Study of the Transfer of Training: From the Tertiary Setting to the Corporate Environment: 7.* Report to Accident Rehabilitation and Compensation Insurance Corporation.

Brook, J. A. & Collinson, C. A. (1997c). *A Study of the Transfer of Training: From the Tertiary Setting to the Corporate Environment: 8.* Report to Accident Rehabilitation and Compensation Insurance Corporation.

Brook, J. A. (1997). *Industrial and Organizational Psychology: Programme Evaluation Notes.* Unpublished.

Bryman Kelly, H. (1982). A Primer on Transfer of Training. *Training and Development Journal, November, pp. 102-106.*

Bunker, D. R. & Wijnberg, M. (1985). The supervisor as a mediator of organizational climate in public social service organizations. *Administration in Social Work, Vol. 9(2), pp. 59-72.*

Burk, R. J. & Bolf, C. (1986). Learning within organizations: Sources and content. *Psychological Reports, Vol. 59, pp. 1187-1196.*

Burke, M. J. & Day, R. R. (1986). A cumulative study of the effectiveness of managerial training. *Journal of Applied Psychology, Vol. 71(2), pp.* 232-245.

Burke, W. W., Coruzzi, C. A., Church, A. H. (1996). The organizational survey as an intervention for change. In A. I. Kravt, *Organizational Surveys: Tools for Assessment and Change.* Jossey-Bass Publishers: San Francisco.

Byham, W. C., Adams, D., & Kiggins, A. (1976). Transfer of modeling training to the job. *Personnel Psychology, 29,* 345-349.

Campbell, J. P. (1989). An agenda for theory and research. In I. L. Goldstein (Ed.). *Training and Development in Organization* (pp. 469-486). Jossey-Bass: San Francisco.

Campbell, J. P. (1988). Training design for performance improvement. In J. P. Campbell, R. J. Campbell, & Associates (Eds.). *Productivity in Organizations* (pp. 177-216). Jossey-Bass: San Francisco.

Campbell, J. P. (1971). Personnel training and development. *Annual Review of Psychology, Vol. 22, pp. 565-602.*

Campbell, J. P. (1970). Personal Training and Development. *Annual Review of Psychology, 22,* 565-602.

Campbell, L. P., Dunnette, M. D., Lawler, E. E., & Weick, K. E., Jr. (1970). *Managerial behaviour, performance, & effectiveness.* New York: McGraw-Hill.

Cannon-Bowers, J. A., Salas, E., Tannenbaum, S. I., & Mathieu, J. E. (1995). Toward theoretically based principles of training effectiveness: A model and initial empirical investigations. *Military Psychology, 7,* 141-164.

Casio, W. F. (1995). Whither industrial and organizational psychology in a changing world of work? *American Psychologist, Vol. 50(11), pp. 928-939.*

Casio, W. F. (1989). The use of utility approaches as an evaluation model. In I. L. Goldstein (Ed.). *Training and Development in Work Organizations: Frontiers of Industrial and Organizational Psychology* (63-88). Jossey Bass: San Francisco.

Catalano, J. F. Kleiner, B. M. (1984). Distant transfer in coincident timing as a function of variability of practice. *Perceptual and Motor Skills, Vol. 58, pp. 851-856.*

Clark, C. S., Dobbins, G. H., & Ladd, R. T. (1993). Exploratory field study of training motivation. *Group and Organization Management, Vol. 18, pp. 292-307.*

Clark, C. S. (1990). *Social Processes in Work Groups: A Model of the Effect of Involvement, Credibility, and Good Linkage on Training Success.* Unpublished doctoral dissertation, Department of Management, University of Tennessee, Knoxville.

Clement, R. W. (1982). Testing the hierarchy theory of training evaluation : An expanded role for trainee reactions. *Public Personnel Management Journal, Vol. 11, pp. 176-184.*

Coakes, S. J. & Steed, L. G. (1999). *SPSS: Analysis Without Anguish – Version 6.1 for IBM & Macintosh Users.* John Wiley & Sons. New York.

Cohen, D. J. (1990). What motivates trainees? *Training and Development Journal, November,* 91-97.

Cohen, J. (1977). *Statistical Power Analysis for the Behavioral Sciences.* Academic Press: New York.

Cominsky, I. J. (1982). Transfer of training in counselor education programs: A study of the use of stimulus variability and the provision of general principles to enhance the transfer of the skill of reflection of feeling. *Dissertation Abstracts International, 43(1-A),* 76.

Condiotte, M. M. & Lichtenstein, E. (1981). Self-efficacy and relapse in smoking cessation programs. *Journal of Consulting and Clinical Psychology, Vol. 49(5), pp. 648-658.*

Cook, T. D. & Campbell, D. T., Peracchio, L. (1990). Quasi Experimentation. Chapter 9. In M. D. Dunnette & L. M. Hough (2nd Eds.). *Handbook of Industrial and Organizational Psychology.* Consulting Psychologists Press, Inc.: California.

Cook, T. D. & Campbell, D. T. (1976). *An Evaluation Primer.* Beverly Hills: Sage.

Cormier, S. (1984). *Transfer of Training: An Interpretive Review* (Technical report no. 608). Army Research Institute for the Behavioral and Social Sciences: Alexandria, VA.

Corsini, R. (1987). *Concise Encyclopedia of psychology.* Wiley, NY.
Crafts, L. W. (1935). Transfer as related to number of common elements. *Journal of General Psychology, 13,* 147-158.

Crannell, C. W. (1956). Transfer in problem solution as related to the type of training. *The Journal of General Psychology, 54,* 3-14.

Cronbach, L. J. (1971). Test validation. In R. L. Thorndike. *Educational Measurement* (2nd Ed.) (pp. 443-507). American Council on Education: Washington, DC.

Curry, D. H., Caplan, P., & Knuppel, J. (1994). Transfer of training and adult learning (TOTAL). *Journal of Continuing Social Work Education, 6(1),* 8-14.

Decker, P. J. (1982). The enhancement of behavior modeling training of supervisory skills by the inclusion of retention processes. *Personnel Psychology, Vol. 32, pp. 323-332.*

Denison, D. R. (1996). What *is* the difference between organizational culture and organizational climate? A native's point of view on a decade of paradigm wars. *Academy of Management Journal, Vol. 21(3), pp.* 619-654.

Dodgson, M. (1993). Organizational learning: A review of some literatures. *Organization Studies, 14(3),* 375-394.

Drexler, J. A., Jr. (1977). Organizational climate: Its homogeneity within organizations. *Journal of Applied Psychology, Vol. 62, pp. 38-42.*

Dugard, P., Todman, J. (1996). Analysis of pre-test/post-test Control Group Designs in Educational Research. *Educational Psychology.* Vol. 15(2), May 1995, pp. 181-198.

Duncan, C. P. (1958). Transfer of training with single versus multiple tasks. *Journal of Experimental Psychology, Vol. 55, pp. 63-72.*

Duncan, C. P., & Underwood, B. J. (1953). Transfer in motor learning as a function of degree of first task learning and inter-task similarity. *Journal of Experimental Psychology, Vol. 460, pp. 445-452.*

Eddy, W. B., Glad, D. D., & Wilkins, D. D. (1967). Organizational Effects on Training. *Training and Development Journal, Vol. 21(2), pp. 15-23.*

Ehrenberg, L. M. (1983). How to ensure better transfer of learning. *Training and Development Journal, 37(2),* 81-83.

Ellis, H. C. (1965). *The Transfer of Learning.* MacMillan: New York.

Evan, W. M. (1963). Peer-group interactions and organisational socialisation: A study of employee turnover, *American Sociological Review, 28, pp. 436-440.*

Facteau, J D., Dobbins, G H., Russell, J E A., Ladd, R T., Kudish J D. (1995). The Influence of General Perceptions of the Training Environment on Pretraining Motivation and Perceived Training Transfer. *Journal of Management, Vol. 21(1), pp. 1-25.*

Feldman, D. C. (1989). Socialization, resocialization, and training: Reframing the research agenda. In I. L. Goldstein (Eds.), *Training and development in organisations (pp. 376-416). Jossey-Bass: San Francisco.*

Feldman, M. (1981). Successful post-training application. *Training and Development Journal, Vol. 35, pp. 72-75.*

Fendrich, D. W., Hearly, A. F., Meiskey, L., Crutcher, R. J., Little, W., Borne, L. E. (1988). *Skills Maintenance: Literature Review and Theoretical Analysis (AFHRL-TP-87-73).* Brooks AFB, TZ: Human Resource Laboratory.

Fink, A & Kosecoff, J. (1978). *An Evaluation Primer.* Beverly Hills: Sage.

Fleishman, E. (1955). 'Leadership climate, Human relations training and supervisory behaviour. *Personnel Psychology, Vol. 16, pp. 205-222.*

Fleishman, E. A., Harris, E. F., & Burtt, H. E. (1955). *Leadership and supervision in industry* (Report No. 33). Columbus: Bureau of Educational Research, Ohio State University.

Fleishman, E. (1953). Leadership climate: human relations training, and supervisory behavior. *Personnel Psychology, Vol. 6, pp. 205-222.*

Ford, J. K., Quinones, M. A., Sego, D. J., & Sorra, J. S. (1992). Factors affecting the opportunity to perform trained tasks on the job. *Personnel Psychology, 45,* 511-527.

Ford, J. K & Wroten, S. P. (1984). Introducing New Methods for Conducting Training Evaluation and for Linking Training Evaluation to Program Redesign. *Personnel Psychology, Vol. 37, pp. 651-665.*

Foxton, M. J. (1994). A process approach to transfer of training, Part 2: Using action planning to facilitate the transfer of training. *Australian Journal of Educational Technology, Vol. 10(1), pp. 1-18.*

Frayne, C. & Latham, G. P. (1987). Application of social learning theory to employee self-management of attendance. *Journal of Applied Psychology, Vol. 72, pp. 387-392.*

Froman, L. (1977). Some determinants of trainee effort and performance: An investigation of expectancy theory. *Dissertation Abstract, Vol. 45, pp. 2411-2415, University Microfilm No. 77-23975.*

Gagne, R. M., Briggs, L. J., & Wager, W. W. (1992). *Principles of Instructional Design.* Harcourt Brace Jovanovich: Fort Worth, TX.

Gagne, R. M. (1984). Learning outcomes and their effects: Useful categories of human performance. *American Psychologist, Vol. 39, pp. 377-385.*

Gagne, R. (1972). Behavioral objectives? Yes! *Educational Leadership, Vol. 29, pp. 394-396.*

Gagne, R, M. (1965). *The Condition of Learning.* Holt, Rinehart, & Winston, NY.

Gagne, R. M. (1962). "Military training and principles of learning. *American Psychologist, Vol. 17, pp. 83-91.*

Garavaglia, P. L. (1993). How to ensure transfer of training. *Training & Development, 47(10), pp. 63-68.*

Garavaglia, P. L. (1996). Applying a transfer model to training. *P & I, Vol. 35(4), pp. 4-8.*

Gardner, R. C., Neufeld, R. W. (1988). Use of the Sample Change Score in Correlational Analysis. *Educational & Psychological Measurement. Vol. 47(4), Win. 1987., pp. 849-864.*

Gavin, J. F. (1975). Organizational climate as a function of personal and organizational variables. *Journal of Applied Psychology, Vol. 60, pp. 135-139.*

George, J., & Bishop, L. (1971). "Relationship of Organisational Structure and teacher personality Characteristics to Organisational Climate, *Administrative Science Quarterly, Vol. 16, pp. 467-476.*

Georgenson, D. (1982). The problem of transfer calls for partnership. *Training and Development Journal. Vol. 36, pp. 75-78.*

Gist, M. E., Stevens, C. K., & Bavetta, A. G. (1991). Effects of self-efficacy and post-training intervention on the acquisition and maintenance of complex interpersonal skills. *Personnel Psychology, Vol. 44,pp. 837-861.*

Gist, M. E., Bavetta, A. G., Stevens, C. K. (1990). Transfer training method: Its influence on skill generalisation, skill repetition, and performance level. *Personnel Psychology, Vol. 43(3), pp. 501-523.*

Gist, M. E. (1989a). Effects of alternative training methods on self-efficacy and performance in computer software training. *Journal of Applied Psychology, Vol. 74, pp. 884-891.*

Gist, M. E. (1989b). The influence of training method on self-efficacy and idea generation among managers. *Personnel Psychology, 787-805.*

Gist, M. E., Schwoerer, C., & Rosen, B. (1987). Modeling vs. non-modeling: the impact of self-efficacy and performance in computer training for managers. *Academy Management Best Paper Proc., Vol. 47, pp. 122-126.*

Glick, W. H. (1985). Conceptualizing and measuring and psychological climate: Pitfalls in multilevel research. *Academy of Management Review, Vol. 10, pp. 601-616.*

Glick, W. H. (1985). Conceptualizing and Measuring Organisational And Psychological Climate: Pitfalls in Multivariate Research, *Academy of Management Review, Vol. 10(3), pp. 601-616.*

Goldbeck, R. A., Bernstein, B. B., Hillix, W. A., & Marx, M. H. (1957). Application of the half split technique to problem solving tasks. *Journal of experimental Psychology, Vol. 53, pp. 330-338.*

Goldstein, I. L. (1993). *Training in Organisations: Needs Assessment, Development & Evaluation.* Montterey, CA: Brooks/Cole.

Goldstein, I. (1991). Training in Work organisations. In M. D. Dunnette & L. M. Hough (Eds.), *Handbook of Industrial & Organisational Psychology* (2nd. Ed., pp. 507-619). Palo Alto, CA: Consulting Psychologists Press.

Goldstein, I. L. & Gilliam, P. (1990). Developing and maintaining competitiveness: Training system issues in the year 2000. *American Psychologist, February, Vol. 45, pp. 134-143.*

Goldstein, I. L. (1986). *Training in Organization: Program Development, Needs Assessment, and Evaluation.* Brooks/Cole: Pacific Grove, CA.

Goldstein, I. L. & Musicante, G. R. (1985). The applicability of a training transfer model to issues concerning rater training. In E. Locke (Ed.). *Generalizing from Laboratory to Field Setting* (pp. 83-98). Lexington Books: Lexington, MA.

Goldstein, I. (1980). Training in work organisations. *Annual Review of Psychology, Vol. 31, pp. 229-272.*

Goldstein, I. L. (1974). *Training: Program Development and Evaluation.* Brooks/Cole: Monteroy, CA.

Gravetter, F. J., Wallnau, L. B. (1992). *Statistics for Behavioural Science: A First Course for Students of Psychology & Education* (3rd Ed.) West Publishing Company.

Green, S. B., Salkind, N. J., & Akey, T. M. (1997). *Using SPSS for Windows: Analyzing and Understanding Data.* Prentice-Hall Inc.: new Jersey.

Greene, J., D'Oliveira, M. (1999). *Learning to Use Statistical Tests in Psychology.* (2nd ed.). Open University Press. Buckingham. Philadelphia.

Gregoire, T. K., Propp, J., Poertner J. (1998). The Supervisor's Role in the Transfer of Training. *Administration in Social Work, Vol. 22(1), pp. 1-17.*

Guion, R. M. (1973). A note on organisational climate. *Organizational Behavior and Human Performance, Vol. 9, pp. 120-125.*

Guthrie, J. P. & Schwoerer, C. E. (1994). Individual and contextual influences on self-assessed training needs. *Journal of Organizational Behavior, Vol. 15, pp. 405-422.*

Hagman, J. D., & Rose, A. M. (1983). Retention of military tasks: A Review. *Human Factor, Vol. 25(2), pp. 199-213.*

Hair, J. F, Jnr., Anderson, R. E., Tatham, R. L., Black, W. C. (1998). *Multivariate Data Analysis.* (5th Ed). Pretice-Hall International. New Jersey.

Hastings, S. L, Sheckley, B. G., & Nichols, A. B. (1995). Transfer of training: The impact of supervisory support, supervisory involvement, situational constraints, and self-efficacy on the application of technical skills training. In E. F. Holton III (Ed.). *Proceedings of the 1995 Academy of Human Resource Development Annual Meeting* (pp. 20-22).

Hellreigel, D. & Slocum, J. W., Jr. (1974). Organizational climate: Measures, research, and contingencies. *Academy of Management Journal, Vol. 17, pp. 255-280.*

Hicks, W. D. & Klimoski, R. J. (1987). Entry into training programs and its effects on training outcomes: A field experiment. *Academy of Management Journal, Vol. 30(3), pp. 542-552.*

Hicks, W. D. (1984). The process of entering training programs and its effects on training outcomes. *Dissertation Abstracts,* 44, 3564B (University Microfilms, no. DA 8403528).

Higgins, T. E & Kruglanski, A. W. (1996). *Social Psychology: Handbook of Basic Principles.* Guilford Press: NY, London.

Hoiberg, A. & Berry, N. H. (1978). Expectations and perceptions of navy life. *Organizational Behavior and Human Performance, Vol. 21, pp. 130-145.*

Holding, D. H. (1965). *Principles of Training.* Pergamon Press: London.

Hollway, W. (1991). *Work Psychology and Organizational Behavior.* Sage: London.

Holton III, E. F. & Bates, R. A. (1998). *LTQ, Learning Transfer Questionnaire: Administrators Guide* (version 2).

Holton III, E. F., Bates, R. A., Seyler, D. L., Carvalho, M. B. (1997). Towards Construct Validation of a Transfer Climate Instrument. *Human Resource Development Quarterly, Vol. 8(2), pp. 95-133.*

Holton, E. F. III (1996). The flawed four-level evaluation model. *Human Resource Development Quarterly, Vol. 7(1), pp. 5-21.*

House, R. (1968). Training: Some dysfunctional consequences. *Administrative Science Quarterly, Vol. 12, pp. 556-571.*

Huczynski, A. A., & Lewis, J. W. (1980). An empirical study into the learner transfer process in management training. *Journal of Management Studies, Vol. 17, pp. 227-240.*

Huczynski, A. A. (1978). The problem of learning transfer. *Journal of European Industrial Training, 2(1).*

Huczynski, A. A. (1977). Organizational climates and the transfer of learning. *BACIE Journal, Vol. 31(6).*

Ilgen, D. R., Fisher, C. D., & Taylor, M. S. (1979). Consequences of individual feedback on behaviour in organisations. *Journal of Applied Psychology, Vol. 64(4), pp. 349-371.*

Indik, B. P. & Berrien, F. K. (1968). *People, Groups, and Organizations.* Teachers College Press: New York.

James, L. R., James, L. A., & Ashe, D. K. (1990). The meaning of organizations: The role of cognition and values. In B. Schneider (Ed.). *Organizational Climate and Culture* (pp. 40-84). Jossey-Bass: San Francisco.

James, L. A & James, L. R. (1989). Integrating Work Environments Perceptions: Explorations into the Measurement of Meaning. *Journal of Applied Psychology, 74(5),* 739-751.

James, L. R. & Sells, S. B. (1981). Psychological climate: Theoretical perspectives and empirical research. In D. Magnusson, *Toward A Psychological of Situations: An Interactional Perspective.* Lawrence Erlbaum Associates Publishers: Hillsdale, New Jersey.

James, L. R. Harter, J, J., Gent, M. J., & Bruni, J. R. (1978). Psychological Climate: Implications from cognitive social learning theory and interactional psychology. *Personnel Psychology, Vol. 31, pp. 781-813.*

James, L. R., Hartman, A., Stebbins, M. W., & Jones, A. P. (1977). Relationships between psychological climate and a VIE model for work motivation. *Personnel Psychology, Vol. 30, pp. 229-254.*

James, L R. & Jones, A. P. (1974). Organizational climate: A review of theory and research. *Psychological Bulletin, Vol. 81(12), pp. 1096-1112.*

Johannesson, R. E. (1973). Some problems in the measurement of organizational climate. *Organizational Behavior and Human Performance, 10,* 118-144.

Jones, A. P. & James, L. R. (1979). Psychological climate: Dimensions and relationships of individual and aggregated work environment perceptions. *Organizational Behavior and Human Performance, Vol. 23, pp. 201-250.*

Joyce, W. F. & Slocum, J. W. (1984). Collective climate: Agreement as a basis for declining aggregate climates in organizations. *Academy of Management Journal, Vol. 27, pp. 721-742.*

Kaczka, E. & Kirk, R. (1967). Managerial climate, work groups and organizational performance. *Administrative Science Quarterly, Vol. 12, pp. 253-272.*

Kanfer, F. (1970). Self-regulation: Research, issues, and speculation. In Neringer ,C., & Michael, J. (Eds.), *Behaviour modification in clinical psychology (pp. 178-220).* Appleton-Century-Crofts, NY.

Kantowitz, B. H.; Eoediger III, H. L.; & Elmes, D. G. (1991*). Experimental Psychology.* St. Paul: West Publishing Company.

Karl, K. A., O'Leary-Kelly, A. M., & Martocchio, J. J. (1993). The impact of feedback and self-efficacy on performance in training. *Journal of Organizational Behavior, 13,* 379-394.

Kaufman, R., Keller, J., & Watkins, R. (1995). What works and what doesn't: Evaluation beyond kirkpatrick. *P & I, 35(2),* 8-12.

Kazdin, A. E. (1975). *Behavior modification in applied settings.* Homewood, IL: Dorsey Press.

Kelly, J. B. (1982). A primer on transfer of training. *Training and Development Journal, Vol. 36, pp. 102-106.*

Kenny, D. A. (1976). A Quasi- Experimental Approach to Assessing Treatment Effects in the Non-equivalent Control Group Design. *Psychological Bulletin.* Vol. 82(3), May 1975, pp. 345-362.

Kiesler, C. A. (1971). *The Psychology of Commitment: Experiments Linking Behavior to Belief.* Academic Press: New York.

Kirkpatrick, D. L. (1983). Four steps to measuring training effectiveness. *Personnel Administrator, Vol. 28, pp. 19-25.*

Kirkpatrick, D. L. (1977). Evaluating training programs: Evidence versus payoff. *Training and Development Journal, Vol. 31, pp. 9-12.*

Kirkpatrick. D. L. (1976). Evaluation of training. In R. L. Craig (Ed.). *Training and Development Handbook* (pp. 18.1-18.27). McGraw-Hill Book Co.: New York.

Kirkpatrick, D. L. (1967). Evaluation of training. In R. L. Craig & L. R. Bittel (Eds.). *Training and Development Handbook* (pp. 87-112). McGraw-HIll: New York.

Kirkpatrick, D. L. (1959). Techniques for evaluating training programs. *Journal of the American Society of Training Directors, 13,* 3-26.

Komaki, J., Heinzmann, A. T., & Lawson, L. (1980). Effect of training and feedback: Component analysis of a behavioral safety program. *Journal of Applied Psychology, Vol. 65(3), pp. 261-270.*

Kopelman, R. E., Brief, A. P., Guzzo, R. A. (1990). The Role of Climate & Culture in Productivity. *Organisational Climate & Culture*. (pp. 282 – 318). San Francisco: Jossey – Bass.

Korman, A. K. (1971). Expectancies as determinants of performance. *Journal of Applied Psychology, Vol. 55, pp. 218-222.*

Kraiger, K., Salas, E., & Cannon-Bowers, J. A. (1995). Measuring Knowledge organisation as a method for assessing learning during training. *Human Factors, Vol. 37(4), pp. 804-816.*

Landy, F. J. (1989). *Psychology of Work Behaviour* (4th Ed.) Brooks/Cole. Pacific Grove, California.

Latham, G. P., & Crandall, S. R. (1991*). Organisational & Social factors.* John Wiley Sons Pub., pp. *259-285.*

Latham, G. P. (1989). Behavioural approaches to the training and learning process. In I. L. Goldstein (Eds.), *Training and development in organisations (pp. 256-295). Jossey-Bass: San Francisco.*

Latham, G. P. & Frayne, C. A. (1989). Self-management training for increasing job attendance: A follow-up and a replication. *Journal of Applied Psychology, Vol. 74, pp. 411-416.*

Latham, G. P. (1988). Human resource training and development. *Annual Review of Psychology, Vol. 39, pp. 545-582.*

Latham, G. P. & Saari, L. M. (1979). Application of social-learning theory to training supervisors through behavioral modeling. *Journal of Applied Psychology, Vol. 64, pp. 239-246.*

Lawler, E. E. (1986). *High involvement management: Participative strategies for improving organisational performance.* Jossey-Bass, San Francisco.

Lawler, E. E., Hall, D. T., & Oldham, G. R. (1974). Organisational Climate: Relationship to organisational structure, process, and performance. *Organizational Behaviour & Human Performance, Vol. 11, pp. 139-155.*

Lawler, E. E., III (1966). Ability as a moderator of the relationship between job attitudes and job performance. *Personnel Psychology, Vol. 19, pp. 153-164.*

Lawshe, C. H. (1975). A quantitative approach to content validity. *Personnel Psychology, Vol. 28, pp. 563-575.*

Leifer, M. S. & Newstrom, J. W. (1980). Solving the transfer of training problems. *Training and Development Journal, August,* 34-42.

Lewis, M. W. & Anderson, J. R. (1985). Discrimination of operator schemata in problem solving: Learning from examples. *Cognitive Psychology, Vol. 17, pp. 26-65.*

Litwin, G. H. & Stringer, R. A., Jr. (1968). *Motivation and Organizational Climate.* Teachers College Press: New York.

Locke, E. A., & Latham, G. F. (1984). *Goal Setting: A motivational tool that works.* Englewood Cliffs, Prentice Hall, NJ.

Locke, E. A., Shaw, K. N., Saari, L. M., & Latham, G. P. (1981). Goal setting and task performance. *Psychological Bulletin, Vol. 90, pp. 125-152.*

Luthans, F. & Davis, T, R. V. (1979). Behavioural Self-Management: The missing link in managerial effectiveness. *Organisational Dynamics, Vol. 8, pp. 42-60.*

Maier, N. R. F. (1973). *Psychology in industrial organisations.* Houghton Mifflin: Boston.

Mandler, G., & Heinemann, S. H. (1956). Effects of over-learning of a verbal response on transfer of training. *Journal of Experimental Psychology , Vol. 52, pp. 39-46.*

Mandler, G. (1954). Transfer of training as a function of degree of response over-learning. *Journal of Experimental Psychology, Vol. 47(6), pp. 411-417.*

Marshall, C. & Rossman, G. B. (1989). *Designing Qualitative Research.* Newbury Park: Sage.

Martocchio, J. J., & Webster, J. (1992). Effects of feedback and cognitive playfulness on performance in microcomputer software training. *Personnel Psychology, Vol. 45, pp. 553-578.*

Marx, R. B. (1982). Relapse prevention for managerial training: A model for maintenance of behaviour change. *Academy of Management Review, Vol. (7), pp.433-441.*

Marx, R. D. (1982). Relapse prevention for managerial training: A model for maintenance of behavior change. *Academy of Management Review, Vol. 7(3), pp. 433-441.*

Mathieu, J. E., Marthineau, J. W., & Tannenbaum, S. I. (1993). Individual and situational influences on the development of self-efficacy: Implications for training effectiveness. *Personnel Psychology, Vol. 46, pp. 125-147.*

Mathieu, J. E., Tannenbaum, S. I., & Salas, E. (1992). Influences of individual and situational characteristics on the measurement of training effectiveness. *Academy of Management Review, Vol. 35, pp. 828-847.*

Matrocchio, J. J. & Dulebohn, J. (1994). Performance feedback effects in training: The role of perceived controllability. *Personnel Psychology, Vol. 47, pp. 357-373.*

Maurer, T. J. & Tarulli, B. A. (1994). Investigation of perceived environment, perceived outcomes, and personal variables in relationship to voluntary development activity by employees. *Journal of Applied Psychology, Vol. 79, pp. 3-14.*

Mayer, J. D. & Bower, G. H. (1986). Learning and memory for personality prototypes. *Journal of Personality and Social Psychology, Vol. 51(3), pp.* 473-492.

Mayer, R. E. (1975). Information processing variables in learning to solve problems. *Review of Educational Research, Vol. 45, pp. 525-541.*

Mbawo, E. (1995). Strategies for enhancing transfer of training in the workplace. *Training & Management Development Methods, Vol. 9(5), pp. 729-744.*

McGehee, W., & Thayer, P. W. (1961). *Training in business and industry.* Wiley: NY.

McKeough, A., Lupart, J., & Marini, A. (1995). *Teaching for Transfer: Fostering Generalisation in Learning.* Lawrence Erlbaum Associates (Pub), Mahwah, New Jersey.

McSherry, M & Taylor, P. (1994). Supervisory Support for the Transfer of Team-Building Training, *The International Journal of Human Resource Management, Vol. 5(1), pp. 106-119.*

McSherry, M. (1992). *Supervisory Support Behaviour Salient To The Transfer Of Team -Building Training*. Thesis, University of Waikato, NZ.

Mehrens, W. A., Lehmann, I. F. (1991). *Measurement & Evaluation in Education and Psychology.* (4th Ed.). Fort Worth, TX: Holt, Rinehart & Winston.

Michalak, D. F. (1981). The neglected half of training. *Training & development Journal, Vol. 35(5), pp. 22-28.*

Moran, E. T. & Volkwein, J. F. (1992). The cultural approach to the formation of organizational climate. *Human Relations, 45(1),* 19-47.

Morrison, J. E. (1991). Introduction. In J. E. Morrison (Ed.). *Training for Performance: Principles of Applied Human Learning* (pp. 1-10). John Wiley: Chichester, England.

Muchinsky, P. M. (1993). *Psychology of Work* (4th Ed.). Brooks/Cole. Pacific Grove, California.

Naylor, J. C., Briggs, G. E. (1963). The effects of task complexity and task organisation on the relative efficiency of part and whole training methods. *Journal of Experimental Psychology, Vol. 65, pp. 217-224.*

Newman, J. E. (1975). Understanding the organizational structure-job attitude relationship through perceptions of the work environment. *Organizational Behavior and Human Performance, Vol. 14, pp. 371-397.*

Newstrom, J. W. (1984). *A Role-taker/time Differentiated Integration of Transfer Strategies.* Paper presented at the annual convention of the American Psychological Association, Toronto.

Newstrom, J. W. (1978). Catch 22: The problems of incomplete evaluation of training. *Training Development Journal, Vol. 32, pp. 22-24.*

Noe, R. A. & Ford, J. K. (1992). Emerging issues and new directions for training research. In G. Ferris & K. Rowland (Eds.). *Research in Personnel and Human Resource Management* (Vol. 10, pp. 345-384). JAI Press: Greenwich, GT.

Noe, R. A. & Schmitt, N. (1986). The influence of trainee attitudes on training effectiveness: Test of a Model. *Personnel Psychology, Vol. 39, pp. 497-523.*

Noe, R. A. (1986). Trainees' attributes and attitudes: Neglected influences on training effectiveness. *Academy of Management Review, 11(4),* 736-749.

Nordhaug, O. (1989). Reward functions of personnel training. *Human relations, Vol. 42(5), pp. 373-388.*

O'Connor, E. J., Peters, L. H., Pooyan, A., Weekley, J., Frank, B., & Erenkrantz, B. (1984). Situational constraint effects on performance, affective reactions, and turnover: A field replication and extension. *Journal of Applied Psychology, Vol. 69(4),* pp. *663-672.*

O'Connor, E. J., Peters, L. H., Rudolf, C. J., & Pooyan, A. (1982). Situational constraints and employee affective reactions: A partial field replication. *Group and Organization Studies, Vol. 7, pp. 418-428.*

Osgood, C. E. (1949). The Similarity paradox in human learning: A resolution. *Psychological Review, Vol. 56, pp. 132-143.*

Parsons, T. (1960). *Structure and Process in Modern Society.* Free Press of Glencoe, NY.

Payne, R. L., Fineman, S., & Wall, T.D. (1976). Organisational Climate and Job Satisfaction: A Conceptual Synthesis. *Organizational Behaviour & Human Performance, Vol. 16, pp. 45-62.*

Personick, V. A. (1985). A second look at industry output and employment trends through 1995. *Monthly Labor Review, pp. 26-41.*

Peters, L. H., O'Connor, E. J., & Eulberg, J. R. (1985). Situational constraints: Sources, consequences and future considerations. In K. M. Rowland & G. R. Berris (Eds.). *Research in Personnel and Human Resource Management, 3,* (79-114). JAI Press: Greenwich, CT.

Peters, L. H., Fisher, C. D., & O'Connor, E. J. (1982). The moderating effect of situational control of performance variance on the relationship between individual differences and performance. *Personnel Psychology, Vol. 35, pp. 609-621.*

Peters, L H. & O'Connor. E. J. (1980). Situational Constraints and Work Outcomes: The Influence of a frequently Overlooked Construct. *Academy of Management Review, Vol. 5(3), pp. 391-397.*

Peters, L. H., O'Connor, E. J., & Rudolf, C. J. (1980). The behavioral and affective consequences of situational variables relevant to performance settings. *Organizational Behavior & Human Performance, Vol. 25, pp. 79-96.*

Pheysey, D. C. (1993). *Organizational Cultures: Types and Transformations.* Routledge: London.

Phillips, J. S. & Freedman, S. M. (1984). Situational performance constraints and task characteristics: Their relationship to motivation and satisfaction. *Journal of Management, Vol. 10, pp. 321-331.*

Phye, G. D. (1989). Schemata training and transfer of an intellectual skill. *Journal of Educational Psychology, Vol. 81(3), pp. 347-352.*

Pritchard, R. D. & Karasick, B. W. (1973). The effect of organizational climate on managerial job performance and job satisfaction. *Organizational Behavior and Human Performance, Vol. 9, pp. 126-146.*

Quinones, M. A., Ehrenstein, A. (Eds.) (1997). *Training for a Rapidly Changing Workplace: Application for Psychological Research.* American Psychological Association. Washington.

Quinones, M. A. (1995). Pre-training context effects: Training assignment as feedback. *Journal of Applied Psychology, Vol. 80, pp. 226-238.*

Quinones, M. A., Ford, J. K., Sego, D. J., & Smith, E. M. (1995). The effects of individual and transfer environment characteristics on the opportunity to perform trained tasks. *Training Research Journal, Vol. 1, pp. 29-48.*

Reichers, A. E., & Schneider, B. (1990). Climate and culture: An evolution of constructs. In B. Schneider (Ed.). *Organisational Climate and Culture, pp. 5-39.* Jossey-Bass., San Francisco.

Robertson, I. & Downs, S. (1979). Learning and the prediction of performance: Development of trainability testing in the United Kingdom. *Journal of Applied Psychology, 64,* 42-50.

Rosnow, R. L. & Rosnow, M. (1998). *Writing Papers in Psychology: A Student Guide* (4th Ed.). Brook/Cole Publishing Company: CA, USA.

Rotter, J. B. (1966). Generalized expectancies for internal vs. external control of reinforcement. *Psychological Monographs, Vol. 80, pp. 1-609.*

Rouiller, J Z., & Goldstein, I L (1993) The Relationship Between Organisational Transfer Climate and Positive Transfer of Training. *Human Resource Development Quarterly, Vol. 4(4), pp. 377-390.*

Rouiller, J Z., & Goldstein, I L (1991). *Determinants of the Climate for Transfer of Training.* Paper presented at the 6th annual meeting of the Society of Industrial and Organizational Psychology, St Louis, MO.

Royer, J. M. (1979). Theories of the transfer of learning. *Educational Psychologist, Vol. 14, pp. 53-69.*

Russell, J. S., Terborg, J. R., & Powers, M. L. (1985). Organizational performance and organizational level training and support. *Personnel Psychology, Vol. 38, pp. 849-863.*

Ryman, D. H. & Biersner, R. J. (1975). Attitudes predictive of diving training success. *Personnel Psychology, Vol. 28, pp. 181-188.*

Rynes, S., & Rosen, B. (1995). A Field Survey of Factors Affecting The Adoption and Perceived Success of Diversity Training. *Personnel Psychology, Vol. 48, pp. 247-270.*

Salancik G. R. (1977). Commitment and the control of organisational behavior and belief. In Straw, B. M., & Salancik, G. R. (Eds.), *New Directions in Organisational Behavior (pp. 1-54), Clair Press, Chicago.*

Salas, E., Cannon-Bowers, J. A., & Blickensderfer, E. L. (1993). Enhancing reciprocity between training theory and practice: Principles, guidelines, and specifications In J. K. Ford, S. W. J. Kozlowski, K. Kraiger, E. Salas, & M. TannenBaum (Eds.). *Improving Training Effectiveness in Work Organizations.* Erlbaum: Hillsdale, NJ.

Saxe, S. 91988). Peer influence and learning. *Training and Development Journal, Vol. 42, pp. 40-53.*

Schank, R. C. & Abelson, R. P. (1977). *Scripts, plans, goals, and understanding.* Hillsdale, NJ: Erlbaum.

Schein, E. H. (1990). Organizational Culture. *American Psychologist, February, pp. 109-206.*

Schein, E. H. (1985). *Organisational culture and leader-ship.* Jossey-Bass, San Francisco.

Schendel, J. D. & Hagman, J. D. (1982). On sustaining procedural skills over a prolonged retention interval. *Journal of Applied Psychology, 67,* 605-610.

Schneider, B. & Rentsch, J. (1988). Managing climates and cultures: A futures perspective. In J. Hage (Ed.). *Futures of Organizations.* New Lexington Press: San Francisco.

Schneider, B. (1987). People making the place. *Personnel Psychology, Vol. 14, pp. 437-453.*

Schneider, B. & Reichers, A. E. (1983). On the aetiology of climates. *Personnel Psychology, Vol. 36, pp. 19-39.*

Schneider, B. (1983). Interactional psychology and organizational behavior. In L. L. Cummings & B. M. Staw (Eds.). *Research in Organizational behavior, Vol. 5,* 1-31. JAI Press: Greenwich, CT.

Schneider, B. (1983). Work climates: An interactionist perspective. In N. W. Feimer & E. S. Geller (Eds.). *Environmental Psychology: Directions and Perspectives* (pp. 106-128). Praeger: New York.

Schneider, B. (1978). Person-situation selection: A review of some ability-situation interaction research. *Personnel Psychology, Vol. 31, pp. 381-395.*

Schneider, B., & Snyder, R. (1975). Some Relationships between job satisfaction and organisational climate. *Journal of Applied Psychology, Vol. 60, pp. 318-328.*

Schneider, B. (1975). Organizational Climates: An Essay. *Personnel Psychology, Vol. 28, pp. 447-479.*

Schneider, B. (1972). Organizational climate: Individual preferences and organizational realities. *Journal of Applied Psychology, Vol. 56, pp. 211-217.*

Schon, D. A. (1963). *Displacement of Concepts.* Tavistock Publications, London.

Schweigert, W. A. (1998). A Handbook: Research Methods in Psychology. Brooks/Cole Pub. Co. NY.

Smyth, T. R. (1996). *Writing in Psychology: A Student Guide* (2nd Ed.). John Wiley & Sons, Inc.: New York.

Sternberg, R. J. (1996). The Psychologist's Companion (3rd Ed.). *A Guide for Scientific Writing for Students & Researchers.* Brooks/Cole Pub. Co. NY.

Sternberg, R. J. (1988). *The Psychologist's Companion: A Guide to Scientific Writing for Students and Researchers* (3rd Ed.). Cambridge University Press: United Kingdom.

Tabachnick, B. G. & Fidell, L. S. (1989). *Using Multivariate Statistics* (2nd Eds.). Harper & Row: New York.

Tagiuri, R. & Litwin, G. (1968). *Organizational Climate: Explorations of a Concept.* Harvard Business School: Boston.

Tannenbaum, S. I. & Yukl, G. (1992). Training and development in work organizations. *Annual Review of Psychology, Vol. 43, pp. 399-441.*

Tannenbaum, S. I., Mathieu, J. E., Salas, E., Cannon-Bowers, J. A. (1991). Meeting trainees' expectations: The influence of training fulfillment on the development of commitment self-efficacy, and motivation. *Journal of Applied Psychology, Vol. 76(6), pp. 759-769.*

Taylor, P. J. (1992). 'Training Managers' Perceptions about the implementation of supervisory training. *Human Research Development Quarterly, Vol. 3, p. 243-260.*

Teluk, P.E., Farr, J.L., Mathieu, J.E., & Vance, R.J. (1995). Generalization of Employee involvement training to the job: Individual and Situational Effects. *Personnel Psychology, Vol. 48(3), pp. 607-632.*

Thorndike, E. L. (1927). The law of effect. *American Journal of Psychology, Vol. 39, pp. 212-222.*

Thorndike, R. L. & Hagan, E. (1969). *Measurement & Evaluation in Psychology and Education.* (3rd. Ed.). Wiley, NY.

Thorndyke, P. W. & Hayes-Roth, B. (1979). The use of schemata in the acquisition and transfer of knowledge. *Cognitive Psychology, Vol. 11, pp. 82-106.*

Tracey, J. B., Tannenbaum, S. I., & Kavanagh. (1995). Applying trained skills on the job: The Importance of the Work Environment. *Journal of Applied Psychology, Vol. 80(2), pp. 239-252.*

Trowbridge M. H., & Cason, H. (1932). An experimental study of Thorndike's theory of learning. *Journal of General Psychology, Vol. 7, pp. 245-260.*

Tziner, A. & Haccoun, R. R. (1991). Personal and situational characteristics influencing the effectiveness of transfer of training improvement strategies. *Journal of Occupational Psychology, Vol. 64, pp. 167-177.*

Underwood, B. J. (1951). Associative transfer in verbal learning as a function of response similarity and degree of first line learning. *Journal of Experimental Psychology, Vol. 42, pp. 44-53.*

Vandenput, M. (1973). The transfer of training: Some organizational variables. *Journal of European Training, 2,* 251-262.
Vroom, V. H. (1964). *Work and Motivation.* Wiley: NY.

Watson, W. E., Doster, J., & Michaelsen, L. K. (1990). Individual and group meaning: Exploring the reciprocal relation. *International Journal of Personal Construct Psychology, 3,* 231-248.

Weiss, H. M. (1990). Learning theory and industrial and organizational psychology. In M. D. Dunnette & L. M. Hough (2nd Eds.). *Handbook of Industrial and Organizational Psychology.* Consulting Psychologists Press, Inc.: California.

Wendy, A. S. (1998). Research Methods in Psychology. Brooks/Cole Pub. Co. Pacific Grove.

Wexley, K. N. & Latham, G. P. (1991). *Developing and Training Human Resources in Organization* (2nd Ed.). Harper-Collins: New York.

Wexley, K. N. & Baldwin, T. T. (1986). Post-training strategies for facilitating positive transfer: An empirical exploration. *Academy of Management Journal, Vol. 29(3), pp. 503-520.*

Wexley, K. N. (1984). Personnel Training. *Annual Review of Psychology, Vol. 35, pp. 519-551.*

Wexley, K. N & Latham, G. P. (1981). *Development and Training Human Resources in Organisations.* Glenview, IL: Scott Foresman.

Wexley, K. N., Nemeroff, W. F. (1975). Effectiveness of positive reinforcement and goal setting as methods of management development. *Journal of Applied Psychology. Vol. 60, pp. 446-450.*

Wexley, K. N. & Thornton, C. L. (1972). Effect of verbal feedback of test results upon learning. *The journal of Educational Research, 66(3),* 119-121.
Wherry, R. J. & Bartlett, C. J. (1982). The control of bias in ratings: A theory of rating. *Personnel Psychology, Vol. 35, pp. 521-551.*

Wood, R. E., & Bandura, A. (1989). Social cognitive theory of organisational management. *Academy of Management Review, Vol. 14, pp. 361-384.*

Xiao, J. (1996). The relationship between organizational factors and the transfer of training in the electronics industry in Shenzhen, China. *Human Resource Development Quarterly, 7(1),* 55-86.

Appendix I

Research Invitation to Organisation

Warren Saunders

48 Thurleigh Grove

Karori, Wellington

(04) 476 9014

16th December, 1998

ANZ Banking Group

Human Resources & Training Department

PO Box 1492

Wellington

To Whom It May Concern:

A Masters Thesis for Occupational Psychology at Massey University

I am a student at Massey University enrolled in the M.Sc. programme for Industrial and Organisational Psychology, and would appreciate it if your organisation could assist with this research. As I have a special interest in organisational training, I have decided to investigate the utility and success of an in-house training intervention. In order to give ANZ Bank the chance to make an informed decision as to weather to participate, I have provided the following brief of my study, it's requirements, and potential returns.

Please contact me at the following e-mail or telephone number if your organisation requires further information.

warren.saunders.2@uni.massey.ac.nz	phone: Warren Saunders	(04)	476 9014
Or one of my supervisors'			
g.m.habermann@massey.ac.nz	phone: Dr Gus Habermann	(06)	350 4138
s.i.leberman@massey.ac.nz	phone: Sarah Leberman	(06)	350 4353

I look forward to your response.

Regards

Warren Saunders B.Sc., B.Ph.Ed., Dip.Sc.

Executive Summary

Determinants of Perceived Training Transfer

Research Objectives

The research aims to explore the influence of organisational climate and trainee characteristics on the utility of newly learnt skills (from an in-house training programme) back in the job. The study will pursue three major objectives:

1. To investigate the transfer of training from the perspective of an in-house training intervention in the New Zealand context.
2. To develop and field-test a measure of perceived training effectiveness for an in-house training intervention.
3. To explore the relationship between perceived organisational transfer climate and perceived training transfer from an in-house training intervention. This will be guided by Holton's (1996) 'Evaluation Research & Measurement Model.'

Research Requirements

The research would require the repeated commitment of a non-training (control) and training groups with the survey being administered once before and again after the training. For methodological reasons, the survey would need to be administered at designated times, with the pre-test at one week prior to training, and the post-test at four weeks after training. Additionally, the research would require the commitment and support of the human resources department for refinement of all measures, and provision of the training and control groups for the repeated measure. The survey itself takes approximately 1 hour to complete, and would thus require 2 hours commitment from each staff member. Participants would be required to complete a transfer of training measure, Learning Transfer Questionnaire, background measure, and a few open-ended questionnaires. It should be noted that the researchers is partial to suggestions for design, methodological, and survey modification in the event that the present format is not completely suited to the organisation.

Research Return from Investment

Given that in part the present study is an evaluation, the participating organisation would receive a quantifiable indication of how successfully the learning objectives for the training intervention have been reached. As a transfer investigation, the study offers the participating company the opportunity to identify those aspects in their work environment which seem to be inhibiting or enhancing the utility of newly learnt skills. Also identified would be those aspects of the work environment that seem to foster the maintenance of learnt skills. Overall, the investigation offers a company the chance to identify the degree of success of an in-house training intervention, and with the identification of specific intervening factors, the chance to make informed corrective decisions to training goals, design, utility, and the work environment. Findings could potentially help guiding training practitioners and clients to aspects of the trainee, and work environment that act to mediate/moderate training transfer.

Appendix II

Information Sheets & Consent form

Transfer of Training.

INFORMATION SHEET (Treatment Group)

Researcher:

Warren Saunders
School of Psychology
Massey University
Private Bag 11 222,
Palmerston North
Tel. (04) 476 9014.
E-mail: Warren.Saunders.2@uni.massey.ac.nz

Supervisors:

Dr Gus Habermann
(06) 350 2054

Sarah Leberman
(06) 356 4353

I am a student at Massey University enrolled in the M.Sc programme for Industrial and Organisational Psychology. I would appreciate it if you could assist me with my research by participating in one pre-training and two post-training confidential and anonymous mail-out surveys. As I have a special interest in training effectiveness, this research has the following aims:

1. To establish the degree to which an in-house training program results in changes in work place practices and effectiveness.

2. To determine whether characteristics of the work environment and trainee inhibit or enhance the use of trained skills back on the job.

If you are about to participate in the Managing Customer Complaints training module (Sales Accreditation Framework) as part of your organisational training, I would appreciate your contribution to the present investigation. In undertaking participation it would be most useful if you could complete the pre-training and post-training questionnaires at the designated times to assist in the formation of this research. Each of the four questionnaires will take between 10 to 25 minutes to complete. Questionnaires consist of a few short written responses, with the majority being made up of a series of 'yes' or 'no' and rating type questions. Following is an

outline of when the questionnaires and Managing Customer Complaints Module should be completed.

Questionnaire One:	**Immediately before training.**
Questionnaire Two:	**Immediately before training, but after questionnaire one.**
Questionnaire Three:	**Four weeks after training.**
Questionnaire Four:	**Eight weeks after training.**

Training: - Must be completed within two weeks of beginning it.

The pre- (immediately before training) and post-training (eight weeks) questionnaires will gather information on your perceived level of trained skill use on the job. The first post-training survey at four weeks after the training will gather information about the characteristics of your work environment.

You have the right to refuse to take part in this study. You do not have to answer all questions, and you have the right to withdraw from this study at any time without reason. This research will not affect your job position, work relationships, prospects for future promotion, remuneration, training opportunities, or any other work related issues.

If you are willing to take part in this study, please complete the attached consent form and mail it back with questionnaire 'one' and 'two' using the provided freepost self-addressed envelope. If you have any questions, please contact the researcher or one of the supervisors' at the above telephone number(s) or e-mail.

Your individual responses will be held in strict confidentiality and anonymity from your organisation and the researchers at Massey University using a coding system. At the conclusion of the investigation, all material will be destroyed. No material, which could identify you personally is be used in any written or verbal report.

A copy of the results and findings will be available from the Department of Psychology at Massey University. Alternatively, a copy of the finding can be obtained directly from the researcher or your HR department.

Thank you for your time and assistance.

Transfer of Training.

INFORMATION SHEET (Control Group)

Researcher:

Warren Saunders
School of Psychology
Massey University
Private Bag 11 222,
Palmerston North
Tel. (04) 476 9014.
E-mail: Warren.Saunders.2@uni.massey.ac.nz

Supervisors:

Dr Gus Habermann
(06) 350 2054

Sarah Leberman
(06) 356 4353

I am a student at Massey University enrolled in the M.Sc programme for Industrial and Organisational Psychology. I would appreciate it if you could assist me with my research by participating in one pre-training and two post-training confidential and anonymous mail-out surveys. As I have a special interest in training effectiveness, this research project has the following aims:

1. To establish the degree to which an in-house training program results in changes in work place practices and effectiveness.

2. To determine how much characteristics of the work environment inhibit or enhance the use of recently trained skills back on the job.

If you are participating in the Sales Accreditation Framework as part of your organisational training, I would appreciate your contribution to the present investigation. In undertaking participation it would be most useful if you could complete the questionnaires at the designated times to assist in the formation of this research. Each of the four questionnaires will take between 10 to 25 minutes to complete. Questionnaires consist of a few short written responses, with the majority being made up of a series of 'yes' or 'no' and rating type questions. Following is an outline of when the questionnaires should be completed.

Note: Training refers to the Managing Customer Complaints Module 5 of the Sales Accreditation Framework.

Questionnaire One:	**Immediately before your colleagues training.**
Questionnaire Two:	**Immediately before your colleagues training, but after questionnaire one.**
Questionnaire Three:	**Six weeks after questionnaire one.**
Questionnaire Four:	**Ten weeks after questionnaire one.**

Questionnaires 1 and 4 will gather information on your perceived level of trained skill used back on the job. Questionnaire 3 will gather information about the characteristics of your work environment, and trainee characteristics. Questionnaires 2 gather demographic and background information.

You have the right to refuse to take part in this study. You do not have to answer all questions, and you have the right to withdraw from this study at any time without reason. This research will not affect your job position, work relationships, prospects for future promotion, remuneration, training opportunities, or any other work related issues.

If you are willing to take part in this study, please complete the attached consent form and mail it back with questionnaire 'one' and 'two' using the provided freepost self-addressed envelope. If you have any questions, please contact the researcher or one of the supervisors' at the above telephone number(s) or e-mail.

Your individual responses will be held in strict confidentiality and anonymity from your organisation and the researchers at Massey University using coding system. At the conclusion of the investigation, all material will be destroyed. No material, which could identify you, will be used in any written or verbal report.

A copy of the results and findings will be available from the Department of Psychology at Massey University. Alternatively, a copy of the finding can be obtained directly from the researcher, or your HR department.

Thank you for your time and assistance.

Transfer of Training

CONSENT FORM

If you are willing to participate in this investigation please read the information sheet, sign this form, and return it with the completed background sheet and pre-training Questionnaire.

I have read the information sheet and have understood the purpose and details of the study. I understand that I may contact the researcher for clarification on any issue.

I understand that I have the right to withdraw from participation in this study at any time without question.

I understand that I have the right to decline to answer any part of the investigation.

I _____(full name) agree to participate in this study under the conditions set out in the information sheet.

Signature: _____

Date: _____

Appendix III
Treatment Groups Instructions & Questionnaires

Transfer of Training

Cover Sheet

Cover Sheet Code:

Completion times for Questionnaire & Training: -

Questionnaire One: **Immediately before this training.**
Questionnaire Two: **Immediately before this training, but after questionnaire one.**
Questionnaire Three: **Four weeks after this training.**
Questionnaire Four: **Eight weeks after this training.**

- **Training: - Must be completed within two weeks of beginning it.**
- **Following completion of each questionnaire, use the attached freepost self-addressed envelopes (x3) to send your responses back to the researcher.**
- **Your consent form, questionnaires 1 and 2 should be sent together.**
- **Questionnaires 3 and 4 should be sent separately after you have completed them.**

Transfer of Training

Questionnaire One
Instrument Introduction and Instructions

Instrument Introduction

There is growing interest in how to more effectively develop the knowledge and skills of employees. Of vital interest is the degree to which training programs actually help you to be more effective in your job. ***Questionnaire one*** has been designed to provide information about trainee's perceptions of their effective use of recently learned skills back on the job. It is **important** to remember that the trainee is only one of many factors that affect the use of recent training on the job. It is not an examination and will not in any way affect your employment.

Your cooperation in completing this questionnaire will greatly assist us in making training more effective. Contributing to this effort is simple and will require only **10-15 minutes** of your time.

Instrument Instructions

This questionnaire is to be completed immediately before the Managing Customer Complaints training Module and before questionnaire two.

Questionnaire one contains 45 items. Using the indicated scale of 1 – 5, with 1 being not practice effectively and 5 being practice very effectively to indicate the extent to which you feel you manage customer complaints on the job. Please mark your answers by circling or checking the numbered scale to the right of each item. Your individual ratings will be kept completely confidential and **anonymous**. To ensure anonymity a code has being provided with each training package. It is **important** that you insert the code **correctly** so those questionnaires from the same respondent (training package), including questionnaire one, two, three, and four, can be match up. Please **print** the code from the **cover sheet** in the spaces below: -

Answer each question as honestly and as accurately as you can. Your first response to the item is usually the most accurate, so trust your initial response. It is usually best to not think too long about each item.

With your assistance, the data provided by this questionnaire will be used to improve training in your organization.

Questionnaire One

Please circle the number (1, 2, 3, 4, or 5) to the right of each statement that most closely indicates how effectively you practice that item **on the job** when managing a customer complaint. Please note that *'effective'* in this situation refers to *'how capable you are of producing a result that is desirable to the bank'*, while *'practice'* in the present situation refers to *'the act of applying the item in your work'*.

Please complete it without reference to colleagues and the 'Managing Customer Complaints' training manual or any other material. The more honestly and accurately you respond to each item the better placed your organisation will be to improve future training. A reminder that your individual responses will be held in confidence and anonymity by the researcher at Massey University until the conclusion of the investigation upon which they will be destroyed.

1 – Not practice effectively 2 – Practice less than moderately effective
3 – Unable to judge (effectiveness &/or practice)
4 – Practice moderately effective 5 – Practice very effectively

For the following items, please think about <u>Managing a Customer Complaint</u> :

1.	I show sincerity when listening to a complaint.	1 2 3 4 5
2.	I actively listen to customer complaints.	1 2 3 4 5
3.	I can appropriately recognise the need for the National Manager of Customer Relations.	1 2 3 4 5
4.	I attempt to manage awkward customer behaviour using management technique – fielding, repeated statements, or fogging.	1 2 3 4 5
5.	I identify the key issue in the customer complaint.	1 2 3 4 5
6.	I remain personally detached from bad customer behaviour.	1 2 3 4 5
7.	I move customer from an emotional state to a rational state.	1 2 3 4 5
8.	I inquire as to what would satisfy the customer.	1 2 3 4 5
9.	I formulate a plan to manage the customer complaint.	1 2 3 4 5
10.	I can effectively manage the over-talkative customer.	1 2 3 4 5
11.	I correctly identify a rational state and know when to negotiate a solution.	1 2 3 4 5
12.	I can retain customer(s) whose needs have not been met.	1 2 3 4 5

<u>A reminder that coding of the questionnaire ensures anonymity</u>

<u>Please turn to the next page</u>

1 – Not practice effectively 2 – Practice less than moderately effective
3 – Unable to judge (effectiveness &/or practice)
4 – Practice moderately effective 5 – Practice very effectively

For the following items, please think about <u>Managing a Customer Complaint</u> :

13.	I satisfy customer complaints beyond the expectations of the customer.	1	2	3	4	5
14.	I can take control of a complaint situation when a customer is in an emotional state.	1	2	3	4	5
15.	I practice an effective standardised personal response to bank fees.	1	2	3	4	5
16.	I can recognise customer complaints disguised as a comment.	1	2	3	4	5
17.	I follow correct bank steps in referral of a customer complaint.	1	2	3	4	5
18.	I practice an effective standardised personal response to bank mistakes.	1	2	3	4	5
19.	I practice an effective standardised personal response to bank queues.	1	2	3	4	5
20.	I follow through on solutions agreed upon with customer.	1	2	3	4	5
21.	I can accurately estimate my own capacity to manage a customer complaint.	1	2	3	4	5
22.	I move customer complaints into sales opportunity.	1	2	3	4	5
23.	I empathise with a dissatisfied customer.	1	2	3	4	5
24.	I keep an accurate diary of customer complaint.	1	2	3	4	5
25.	I can judge when it is necessary to refer the customer complaint to a higher authority.	1	2	3	4	5
26.	I respond appropriately to inquiries about the Banking Ombudsman.	1	2	3	4	5
27.	I know bank products well enough to manage a typical complaint.	1	2	3	4	5
28.	I label behaviour customer is using.	1	2	3	4	5
29.	I make an unqualified apology to dissatisfied customers.	1	2	3	4	5
30.	I correctly estimate customer's state (emotional, rational, or controller).	1	2	3	4	5
31.	I practice an effective standardised personal response to bank fee increases.	1	2	3	4	5

<u>A reminder that coding of the questionnaire ensures anonymity</u>

<u>Please turn to the last page</u>

1 – Not practice effectively 2 – Practice less than moderately effective
3 – Unable to judge (effectiveness &/or practice)
4 – Practice moderately effective 5 – Practice very effectively

For the following items, please think about <u>Managing a Customer Complaint</u> :

32.	I identify the type of behaviour customer is using.	1	2	3	4	5
33.	I anticipate what the customer hopes to gain from their behaviour.	1	2	3	4	5
34.	I take ownership of a customer complaint.	1	2	3	4	5
35.	I can accurately identify customer need(s).	1	2	3	4	5
36.	I can coherently describe ANZ Bank's policy for customer complaints to customers.	1	2	3	4	5
37.	I satisfy customer complaints in a timely manner.	1	2	3	4	5
38.	I regulate my own non-verbal communication (i.e., facial expressions, eye contact, etc.) in a manner that aids management of customer complaint.	1	2	3	4	5
39.	I evaluate customer behaviour during a complaint.	1	2	3	4	5
40.	I summarise the key issue and theme(s) of conversation to customer.	1	2	3	4	5
41.	I can appropriately judge when customer behaviour becomes unacceptable.	1	2	3	4	5
42.	I accurately paraphrase back to the customer what their complaint is about.	1	2	3	4	5
43.	I adhere to ANZ Bank policy regarding customer complaints.	1	2	3	4	5
44.	I keep customer informed of progress resolving complaint.	1	2	3	4	5
45.	I build customer relationships out of unsatisfied customer need.	1	2	3	4	5

<u>A reminder that coding of the questionnaire ensures anonymity</u>

Upon completion please check your code is entered correctly on the cover and send your questionnaire promptly in the provided freepost self-addressed envelope.

<u>Thank you for your time and effort</u>

Transfer of Training

Questionnaire Two

Demographic Data

All questions that refer to the training should be made with reference to the managing customer complaints training. To ensure anonymity a code has being provided with each training package. It is **important** that you insert the code **correctly** so those questionnaires from the same respondent (training package), including questionnaire one, two, three, and four, can be match up. Please **print** the code from the cover sheet in the spaces below: -

Training Manual Code:

Branch address (work): _____

_____

_____

Telephone Number (Work): _____

Gender: **Female ( )** **Male ( )** **(Please tick)**

Age Group: 20---25 26---30 31---35 36---40 41---45 46---50

51---55 56---60 61---65 66---70 71---75

(Please circle)

A reminder that coding of the questionnaire ensures anonymity

Please turn to the next page

Ethnic Group: European/Pakeha Maori Polynesian Asian (Please circle)
Other (Please specify): _____

Time in organisation (DD/MM/YY): _____

Position (please circle): Bank Teller Sales Officer Other(please specify)

_____

Time in current position (DD/MM/YY): _____

Department working in is: _____

Briefly, outline your job duties, tasks, & functions:

_____

_____

_____

_____

Date training undertaken: _____(DD/MM/YY)

Date expect to complete training: _____(DD/MM/YY)

Background Data

Please tick in the adjacent bracket the response that applies to you. There are no right or wrong answers only your perceptions are sought. All individual responses will to be held in confidence and anonymity by the researcher.

1. I believe that the 'Managing Customer Complaint' training will be/is a worthwhile exercise in terms of improving my job performance.

(1) Yes ( )
(2) No ( )
(3) Unsure ( )

2. I believe that the 'Managing Customer Complaints' training has been tailored to my job needs.

(1) Yes ( )

(2) No ( )
(3) Unsure ( )

3. I believe that self-directed learning used in the 'Managing Customer Complaints' training is the best way to teach customer services skills.
(1) Yes ( )
(2) No ( )
(3) Unsure ( )

A reminder that coding of the questionnaire ensures anonymity

Thank you for your time and effort

Transfer of Training

Questionnaire Three
Instrument Introduction and Instructions

Instrument Introduction

There is growing interest in how to more effectively develop the knowledge and skills of employees. Of vital interest is the degree to which training programs actually help you to be more effective in your job. ***Questionnaire three*** has been designed to provide information about the characteristics of the workplace that might make training more useful.

Your cooperation in completing this questionnaire will greatly assist us in making training more effective. Contributing to this effort is simple and will require only **20-25 minutes** of your time.

Instrument Instructions

This questionnaire is to be completed four weeks after the completion of the Managing Customer Complaints Module.

Questionnaire three contains 89 items. Using the indicated scale of 1 – 5, with 1 being strongly disagree and 5 being strongly agree, to indicate the extent to which you agree or disagree with each statement. Please mark your answers by circling or checking the numbered scale to the right of each item. Your individual ratings will be kept completely confidential and **anonymous**. To ensure anonymity a code has being provided with each training package. It is **important** that you insert the code **correctly** so those questionnaires from the same respondent (training package), including questionnaire one, two, three, and four, can be match up. Please **print** the code from the cover sheet in the spaces below: -

Answer each question as honestly as you can. Your first response to the item is usually the most accurate, so trust your initial response. It is usually best to not think too long about each item.

With your assistance, the data provided by this questionnaire will be used to improve training in your organization.

Questionnaire Three

Please circle the number (1, 2, 3, 4 or 5) to the right of each item that most closely reflects your opinion about training.

1 - Strongly disagree 2 - Disagree 3 - Neither agree nor disagree
4 - Agree 5 - Strongly agree

For the following items, please think about THE MANAGING CUSTOMER COMPLAINTS TRAINING YOU COMPLETED 4 WEEKS AGO :

1.	Prior to the training, I knew how the program was supposed to affect my performance.	1	2	3	4	5
2.	Training will increase personal productivity.	1	2	3	4	5
3.	When I left training, I could not wait to get back to work to try what I learned.	1	2	3	4	5
4.	I believe the training will help me do my current job better.	1	2	3	4	5
5.	I get excited when I think about trying to use my new learning on my job.	1	2	3	4	5
6.	If I successfully use my training, I will receive a salary increase.	1	2	3	4	5
7.	If I use this training I am more likely to be rewarded.	1	2	3	4	5
8.	I am likely to receive some 'perks' if I use my newly learned skills on the job.	1	2	3	4	5
9.	Before the training, I had a good understanding of how it would fit my job-related development.	1	2	3	4	5
10.	I knew what to expect from the training before it began.	1	2	3	4	5
11.	I don't have time to try to use this training.	1	2	3	4	5
12.	Trying to use this training will take too much energy away from my other work.	1	2	3	4	5
13.	The expected outcomes of this training were clear at the beginning of the training.	1	2	3	4	5

A reminder that coding of the questionnaire ensures anonymity

Please turn to the next page

1 - Strongly disagree 2 - Disagree 3 - Neither agree nor disagree
4 - Agree 5 - Strongly agree

For the following items, please think about <u>THE MANAGING CUSTOMER COMPLAINTS TRAINING YOU COMPLETED 4 WEEKS AGO :</u>

14.	Employees in this organization are penalized for not using what they have learned in training.	1	2	3	4	5
15.	If I use what I learn in training, it will help me get higher performance ratings.	1	2	3	4	5
16.	Employees in this organization receive various 'perks' when they utilize newly learned skills on the job.	1	2	3	4	5
17.	If I do not use my training I am unlikely to get a raise.	1	2	3	4	5
18.	I am more likely to be recognized for my work if I use this training.	1	2	3	4	5
19.	My workload allows me time to try the new things I have learned.	1	2	3	4	5
20.	There is too much happening at work right now for me to try to use this training.	1	2	3	4	5
21.	If I do not use new techniques taught in training I will be reprimanded.	1	2	3	4	5
22.	Successfully using this training will help me get a salary increase.	1	2	3	4	5
23.	If I do not utilize my training I will be cautioned about it.	1	2	3	4	5
24.	When employees in this organization do not use their training it gets noticed.	1	2	3	4	5
25.	I have time in my schedule to change the way I do things to fit my new learning.	1	2	3	4	5
26.	Someone will have to change my priorities before I will be able to apply my new learning.	1	2	3	4	5
27.	I wish I had time to do things the way I know they should be done.	1	2	3	4	5
28.	My colleagues appreciate my using new skills I have learned in training.	1	2	3	4	5
29.	My colleagues encourage me to use the skills I have learned in training.	1	2	3	4	5

<u>A reminder that coding of the questionnaire ensures anonymity</u>

<u>Please turn to the next page</u>

1 - Strongly disagree 2 - Disagree 3 - Neither agree nor disagree
4 - Agree 5 - Strongly agree

For the following items, please think about <u>THE MANAGING CUSTOMER COMPLAINTS TRAINING YOU COMPLETED 4 WEEKS AGO :</u>

30.	At work, my colleagues expect me to use what I learn in training.	1	2	3	4	5
31.	My colleagues are patient with me when I try out new skills or techniques at work.	1	2	3	4	5
32.	My supervisor meets with me regularly to work on problems I may be having in trying to use my training.	1	2	3	4	5
33.	My supervisor meets with me to discuss ways to apply training on the job.	1	2	3	4	5
34.	My supervisor will object if I try to use this training on the job.	1	2	3	4	5
35.	My supervisor will oppose the use of techniques I learned in this training.	1	2	3	4	5
36.	My supervisor thinks I am being less effective when I use the techniques taught in this training.	1	2	3	4	5
37.	My supervisor shows interest in what I learn in training.	1	2	3	4	5
38.	My supervisor opposes the use of the techniques I learned in training.	1	2	3	4	5
39.	My supervisor sets goals for me which encourage me to apply my training on the job.	1	2	3	4	5
40.	My supervisor lets me know I am doing a good job when I use my training.	1	2	3	4	5
41.	My supervisor will not like it if I do things the way I learned in this training.	1	2	3	4	5
42.	My supervisor doesn't think this training will help my work.	1	2	3	4	5
43.	My supervisor helps me set realistic goals for job performance based on my training.	1	2	3	4	5

<u>A reminder that coding of the questionnaire ensures anonymity</u>

<u>Please turn to the next page</u>

1 - Strongly disagree 2 - Disagree 3 - Neither agree nor disagree
4 - Agree 5 - Strongly agree

For the following items, please think about <u>THE MANAGING CUSTOMER COMPLAINTS TRAINING YOU COMPLETED 4 WEEKS AGO :</u>

44.	My supervisor would use different techniques than those I would be using if I use my training.	1	2	3	4	5
45.	My supervisor thinks I am being ineffective when I use the techniques taught in training.	1	2	3	4	5
46.	My supervisor will probably criticize this training back on the job.	1	2	3	4	5
47.	The instructional aids (equipment, illustrations, etc.) used in training are very similar to real things I use on the job.	1	2	3	4	5
48.	The methods used in training are very similar to how we do it on the job.	1	2	3	4	5
49.	I like the way training seems so much like my job.	1	2	3	4	5
50.	I will have the things I need to be able to use this training.	1	2	3	4	5
51.	I will be able to try out this training on my job.	1	2	3	4	5
52.	The activities and exercises the trainers used helped me know how to apply my learning on the job.	1	2	3	4	5
53.	It is clear to me that the people facilitating the training understand how I will use what I learn.	1	2	3	4	5
54.	The facilitator(s) used lots of examples that showed me how I could use my learning on the job.	1	2	3	4	5
55.	The way the facilitator(s) training material was taught made me feel more confident I could apply it.	1	2	3	4	5
56.	The resources I need to use what I learned will be available to me.	1	2	3	4	5
57.	I will get opportunities to use this training on my job.	1	2	3	4	5
58.	What is taught in training closely matches my job requirements.	1	2	3	4	5
59.	The situations used in training are very similar to those I encounter on my job.	1	2	3	4	5

<u>A reminder that coding of the questionnaire ensures anonymity</u>

<u>Please turn to the next page</u>

1 - Strongly disagree 2 - Disagree 3 - Neither agree nor disagree
4 - Agree 5 - Strongly agree

For the following items, please think about THE MANAGING CUSTOMER COMPLAINTS TRAINING YOU COMPLETED 4 WEEKS AGO :

60.	There are enough human resources available to allow me to use skills acquired in training.	1	2	3	4	5
61.	At work, budget limitations will prevent me from using skills acquired in training.	1	2	3	4	5
62.	Our current staffing level is adequate for me to use this training.	1	2	3	4	5
63.	It will be hard to get materials and supplies I need to use the skills and knowledge learned in training.	1	2	3	4	5

Please complete questions 64 - 89 on the following pages.
Note that these items have new instructions
Please read them carefully

A reminder that coding of the questionnaire ensures anonymity

1 - Strongly disagree 2 - Disagree 3 - Neither agree nor disagree
4 - Agree 5 - Strongly agree

For the following items, please THINK ABOUT TRAINING IN GENERAL in your organization

64.	The organization does not really value my performance.	1	2	3	4	5
65.	My job performance improves when I use new things that I have learned.	1	2	3	4	5
66.	The harder I work at learning, the better I do my job.	1	2	3	4	5
67.	For the most part, the people who get rewarded around here are the ones that do something to deserve it.	1	2	3	4	5
68.	When I do things to improve my performance, good things happen to me.	1	2	3	4	5
69.	Training usually helps me increase my productivity.	1	2	3	4	5
70.	People around here notice when you do something well.	1	2	3	4	5
71.	The more training I apply on my job, the better I do my job.	1	2	3	4	5
72.	My job is ideal for someone who likes to get rewarded when they do something really good.	1	2	3	4	5
73.	People in my group generally prefer to use existing methods, rather than try new methods learned in training.	1	2	3	4	5
74.	Experienced employees in my group ridicule others when they use techniques they learn in training.	1	2	3	4	5
75.	People in my group are open to changing the way they do things.	1	2	3	4	5
76.	People in my group are not willing to put in the effort to change the way things are done.	1	2	3	4	5
77.	My workgroup is reluctant to try new ways of doing things.	1	2	3	4	5
78.	My workgroup is open to change if it will improve our job performance.	1	2	3	4	5
79.	After training, I get feedback from people on how well I am applying what I learn.	1	2	3	4	5

A reminder that coding of the questionnaire ensures anonymity

Please turn to the last page

1 - Strongly disagree 2 - Disagree 3 - Neither agree nor disagree
4 - Agree 5 - Strongly agree

For the following items, please THINK ABOUT TRAINING IN GENERAL in your organization

80.	People often make suggestions about how I can improve my job performance.	1	2	3	4	5
81.	I get a lot of advice from others about how to do my job better.	1	2	3	4	5
82.	I am confident in my ability to use new skills at work.	1	2	3	4	5
83.	I never doubt my ability to use newly learned skills on the job.	1	2	3	4	5
84.	I am sure I can overcome obstacles on the job that hinder my use of new skills or knowledge.	1	2	3	4	5
85.	At work, I feel very confident using what I learned in training even in the face of difficult or taxing situations.	1	2	3	4	5
86.	People often tell me things to help me improve my job performance.	1	2	3	4	5
87.	When I try new things I have learned, I know who will help me.	1	2	3	4	5
88.	If my performance is not what it should be, people will help me improve.	1	2	3	4	5
89.	I regularly have conversations with people about how to improve my performance.	1	2	3	4	5

A reminder that coding of the questionnaire ensures anonymity

Upon completion please check your code is entered correctly on the cover and send your questionnaire promptly in the provided freepost self-addressed enveloped.

Thank you for your time and effort

Questionnaire Four
Instrument Introduction and Instructions

Instrument Introduction

There is growing interest in how to more effectively develop the knowledge and skills of employees. Of vital interest is the degree to which training programs actually help you to be more effective in your job. ***Questionnaire four*** has been designed to provide information about trainee's perceptions of their effective use of recently learned skills back on the job. It is important to remember that the trainee is only one of many factors that affect the use of recent training on the job. It is not an examination and will in no way affect your employment.

Your cooperation in completing this questionnaire will greatly assist us in making training more effective. Contributing to this effort is simple and will require only **20-25 minutes** of your time.

Instrument Instructions

This questionnaire is to be completed eight weeks after the completion of the Managing Customer Complaints training Module.

Questionnaire four contains 49 items. Using the indicated scale of 1 – 5, with 1 being not practice effectively and 5 being practice very effectively to indicate the extent to which you feel you manage customer complaints on the job. Please mark your answers by circling or checking the numbered scale to the right of each item. The last four items require brief point form written responses and one yes/no response. Your individual ratings and comments will be kept completely confidential and **anonymous**. To ensure anonymity a code has being provided with each training package. It is **important** that you insert the code **correctly** so those questionnaires from the same respondent (training package), including questionnaire one, two, three, and four, can be match up. Please **print** the code from the **cover sheet** in the spaces below: -

Answer each question as honestly and as accurately as you can. Your first response to the item is usually the most accurate, so trust your initial response. It is usually best to not think too long about each item.

With your assistance, the data provided by this questionnaire will be used to improve training in your organization.

Questionnaire Four

Please circle the number (1, 2, 3, 4, or 5) to the right of each statement that most closely indicates how effectively you practice that item **on the job** when managing a customer complaint. Please note that '*effective*' in this situation refers to '*how capable you are of producing a result that is desirable for the bank*', while '*practice*' in the present situation refers to '*the act of applying the item in your work*'.

Please complete it without reference to colleagues and the 'Managing Customer Complaints' training manual or any other material. The more honestly and accurately you respond to each item the better placed your organisation will be to improve future training. A reminder that your individual responses will be held in confidence and anonymity by the researcher at Massey University until the conclusion of the investigation upon which they will be destroyed.

1 – Not practice effectively 2 – Practice less than moderately effective
3 – Unable to judge (effectiveness &/or practice)
4 – Practice moderately effective 5 – Practice very effectively

For the following items, please think about <u>Managing a Customer Complaint</u> :

1.	I satisfy customer complaints in a timely manner.	1 2 3 4 5
2.	I keep an accurate diary of customer complaint.	1 2 3 4 5
3.	I practice an effective standardised personal response to bank queues.	1 2 3 4 5
4.	I take ownership of a customer complaint.	1 2 3 4 5
5.	I can recognise customer complaint disguised as a comment.	1 2 3 4 5
6.	I practice an effective standardised personal response to bank mistakes.	1 2 3 4 5
7.	I anticipate what the customer hopes to gain from their behaviour.	1 2 3 4 5
8.	I can accurately estimate my own capacity to manage a customer complaint.	1 2 3 4 5
9.	I practice an effective standardised personal response to bank fee increases.	1 2 3 4 5
10.	I formulate a plan to manage the customer complaint.	1 2 3 4 5
11.	I label behaviour customer is using.	1 2 3 4 5
12.	I know bank products well enough to manage a typical complaint.	1 2 3 4 5
13.	I remain personally detached from bad customer behaviour.	1 2 3 4 5

<u>A reminder that coding of the questionnaire ensures anonymity</u>

<u>Please turn to the next page</u>

1 – Not practice effectively 2 – Practice less than moderately effective
3 – Unable to judge (effectiveness &/or practice)
4 – Practice moderately effective 5 – Practice very effectively

For the following items, please think about <u>Managing a Customer Complaint</u> :

14.	I practice an effective standardised personal response to bank fees.	1 2 3 4 5
15.	I follow correct bank steps in referral of a customer complaint.	1 2 3 4 5
16.	I can appropriately judge when customer behaviour becomes unacceptable.	1 2 3 4 5
17.	I can appropriately recognise the need for the National Manager of Customer Relations.	1 2 3 4 5
18.	I summarise the key issue and theme(s) of conversation to customer.	1 2 3 4 5
19.	I show sincerity when listening to a complaint.	1 2 3 4 5
20.	I attempt to manage awkward customer behaviour using management technique – fielding, repeated statements, or fogging.	1 2 3 4 5
21.	I identify the key issue in the customer complaint.	1 2 3 4 5
22.	I can correctly estimate customer's state (emotional, rational, or controller).	1 2 3 4 5
23.	I can effectively manage the over-talkative customer.	1 2 3 4 5
24.	I adhere to ANZ Bank policy regarding customer complaints.	1 2 3 4 5
25.	I make an unqualified apology to dissatisfied customers.	1 2 3 4 5
26.	I inquire as to what would satisfy the customer.	1 2 3 4 5
27.	I keep customer informed of progress resolving complaint.	1 2 3 4 5
28.	I move customer complaints into sales opportunity.	1 2 3 4 5
29.	I can judge when it is necessary to refer the customer complaint to a higher authority.	1 2 3 4 5
30.	I actively listen to customer complaint.	1 2 3 4 5
31.	I can accurately identify customer need(s).	1 2 3 4 5
32.	I evaluate customer behaviour during a complaint.	1 2 3 4 5
33.	I follow through on solutions agreed upon with customer.	1 2 3 4 5

<u>A reminder that coding of the questionnaire ensures anonymity</u>

<u>Please turn to the next page</u>

1 – Not practice effectively 2 – Practice less than moderately effective
3 – Unable to judge (effectiveness &/or practice)
4 – Practice moderately effective 5 – Practice very effectively

For the following items, please think about <u>Managing a Customer Complaint</u> :

34.	I can take control of a complaint situation when a customer is in an emotional state.	1	2	3	4	5
35.	I satisfy customer complaints beyond the expectations of the customer.	1	2	3	4	5
36.	I correctly identify a rational state and know when to negotiate a solution.	1	2	3	4	5
37.	I can retain customer(s) whose needs have not been met.	1	2	3	4	5
38.	I accurately paraphrase back to the customer what their complaint is about.	1	2	3	4	5
39.	I response appropriately to inquiries about the Banking Ombudsman.	1	2	3	4	5
40.	I regulate my non-verbal communication (i.e., facial expressions, eye contact, etc.) in a manner that aids management of customer complaint.	1	2	3	4	5
41.	I can coherently describe ANZ Bank policy for customer complaints to customers.	1	2	3	4	5
42.	I move customer from an emotional sate to a rational state.	1	2	3	4	5
43.	I empathise with a dissatisfied customer.	1	2	3	4	5
44.	I identify the type of behaviour customer is using.	1	2	3	4	5
45.	I build customer relationships out of unsatisfied customer need.	1	2	3	4	5
46.	In terms of work, what impact has the managing customer complaints training had? Please specify briefly.					

<u>Please turn to the last page</u>

1 – Not practice effectively 2 – Practice less than moderately effective
3 – Unable to judge (effectiveness &/or practice)
4 – Practice moderately effective 5 – Practice very effectively

---

For the following items, please think about <u>Managing a Customer Complaint</u> :

---

47. What role(s) has your supervisor played since your completion of the managing customer complaint module? Please specify briefly.

48. What role(s) has your work group played since your completion of the managing customer complaint module? Please specify briefly.

49. Did you receive a module pass (i.e. 75%) on the Managing Customer complaints training? Please tick one.

YES ( )
NO ( )
Unknown ( )

A reminder that coding of the questionnaire ensures anonymity

Upon completion please check your code is entered correctly on the cover and send your questionnaire promptly in the provided freepost self-addressed envelope.

Thank you for your time and effort

Appendix IV
Control Groups Instructions & Questionnaires

Transfer of Training

Cover Sheet

Cover Sheet Code:

Completion times for Questionnaire:

Note: Training refers to the Managing Customer Complaints Module 5 of the Sales Accreditation Framework.

Questionnaire One: **Immediately before your colleagues training.**

Questionnaire Two: **Immediately before your colleagues training, but after questionnaire one.**

Questionnaire Three: **Six weeks after questionnaire one.**

Questionnaire Four: **Ten weeks after questionnaire one.**

- **Following completion of each questionnaire, use the attached freepost self-addressed envelopes (x3) to send your responses back to the researcher.**
- **Your consent form, questionnaires 1 and 2 should be sent together.**
- **Questionnaires 3 and 4 should be sent separately after you have completed them.**

Transfer of Training

Questionnaire One
Instrument Introduction and Instructions

Instrument Introduction

There is growing interest in how to more effectively develop the knowledge and skills of employees. Of vital interest is the degree to which training programs actually help you to be more effective in your job. ***Questionnaire one*** has been designed to provide information about trainee's perceptions of their effective use of recently learned skills back on the job. It is **important** to remember that the trainee is only one of many factors that affect the use of recent training on the job. It is not an examination and will not in any way affect your employment.

Your cooperation in completing this questionnaire will greatly assist us in making training more effective. Contributing to this effort is simple and will require only **10-15 minutes** of your time.

Instrument Instructions

This questionnaire is to be completed immediately before your colleagues begin the Managing Customer Complaints training Module.

Questionnaire one contains 45 items. Using the indicated scale of 1 – 5, with 1 being not practice effectively and 5 being practice very effectively to indicate the extent to which you feel you manage customer complaints on the job. Please mark your answers by circling or checking the numbered scale to the right of each item. Your individual ratings will be kept completely confidential and **anonymous**. To ensure anonymity a code has being provided with the questionnaires on a cover sheet. It is **important** that you insert the code **correctly** so those questionnaires from the same respondent, including questionnaire one, two, three, and four can be match up. Please **print** the code from the **cover sheet** in the spaces below: -

Answer each question as honestly and as accurately as you can. Your first response to the item is usually the most accurate, so trust your initial response. It is usually best to not think too long about each item.

With your assistance, the data provided by this questionnaire will be used to improve training in your organization.

Questionnaire One

Please circle the number (1, 2, 3, 4, or 5) to the right of each statement that most closely indicates how effectively you practice that item **on the job** when managing a customer complaint. Please note that *'effective'* in this situation refers to *'how capable you are of producing a result that is desirable to the bank'*, while *'practice'* in the present situation refers to *'the act of applying the item in your work'*.

Please complete it without reference to colleagues and the 'Managing Customer Complaints' training manual or any other material. The more honestly and accurately you respond to each item the better placed your organisation will be to improve future training. A reminder that your individual responses will be held in confidence and anonymity by the researcher at Massey University until the conclusion of the investigation upon which they will be destroyed.

1 – Not practice effectively 2 – Practice less than moderately effective
3 – Unable to judge (effectiveness &/or practice)
4 – Practice moderately effective 5 – Practice very effectively

For the following items, please think about <u>Managing a Customer Complaint</u> :

1.	I show sincerity when listening to a complaint.	1	2	3	4	5
2.	I actively listen to customer complaints.	1	2	3	4	5
3.	I can appropriately recognise the need for the National Manager of Customer Relations.	1	2	3	4	5
4.	I attempt to manage awkward customer behaviour using management technique – fielding, repeated statements, or fogging.	1	2	3	4	5
5.	I identify the key issue in the customer complaint.	1	2	3	4	5
6.	I remain personally detached from bad customer behaviour.	1	2	3	4	5
7.	I move customer from an emotional state to a rational state.	1	2	3	4	5
8.	I inquire as to what would satisfy the customer.	1	2	3	4	5
9.	I formulate a plan to manage the customer complaint.	1	2	3	4	5
10.	I can effectively manage the over-talkative customer.	1	2	3	4	5
11.	I correctly identify a rational state and know when to negotiate a solution.	1	2	3	4	5
12.	I can retain customer(s) whose needs have not been met.	1	2	3	4	5

<u>A reminder that coding of the questionnaire ensures anonymity</u>

<u>Please turn to the next page</u>

1 – Not practice effectively 2 – Practice less than moderately effective
3 – Unable to judge (effectiveness &/or practice)
4 – Practice moderately effective 5 – Practice very effectively

For the following items, please think about <u>Managing a Customer Complaint</u> :

13.	I satisfy customer complaints beyond the expectations of the customer.	1	2	3	4	5
14.	I can take control of a complaint situation when a customer is in an emotional state.	1	2	3	4	5
15.	I practice an effective standardised personal response to bank fees.	1	2	3	4	5
16.	I can recognise customer complaints disguised as a comment.	1	2	3	4	5
17.	I follow correct bank steps in referral of a customer complaint.	1	2	3	4	5
18.	I practice an effective standardised personal response to bank mistakes.	1	2	3	4	5
19.	I practice an effective standardised personal response to bank queues.	1	2	3	4	5
20.	I follow through on solutions agreed upon with customer.	1	2	3	4	5
21.	I can accurately estimate my own capacity to manage a customer complaint.	1	2	3	4	5
22.	I move customer complaints into sales opportunity.	1	2	3	4	5
23.	I empathise with a dissatisfied customer.	1	2	3	4	5
24.	I keep an accurate diary of customer complaint.	1	2	3	4	5
25.	I can judge when it is necessary to refer the customer complaint to a higher authority.	1	2	3	4	5
26.	I respond appropriately to inquiries about the Banking Ombudsman.	1	2	3	4	5
27.	I know bank products well enough to manage a typical complaint.	1	2	3	4	5
28.	I label behaviour customer is using.	1	2	3	4	5
29.	I make an unqualified apology to dissatisfied customers.	1	2	3	4	5
30.	I correctly estimate customer's state (emotional, rational, or controller).	1	2	3	4	5
31.	I practice an effective standardised personal response to bank fee increases.	1	2	3	4	5

<u>A reminder that coding of the questionnaire ensures anonymity</u>

<u>Please turn to the last page</u>

1 – Not practice effectively 2 – Practice less than moderately effective
3 – Unable to judge (effectiveness &/or practice)
4 – Practice moderately effective 5 – Practice very effectively

For the following items, please think about <u>Managing a Customer Complaint</u> :

32.	I identify the type of behaviour customer is using.	1	2	3	4	5
33.	I anticipate what the customer hopes to gain from their behaviour.	1	2	3	4	5
34.	I take ownership of a customer complaint.	1	2	3	4	5
35.	I can accurately identify customer need(s).	1	2	3	4	5
36.	I can coherently describe ANZ Bank's policy for customer complaints to customers.	1	2	3	4	5
37.	I satisfy customer complaints in a timely manner.	1	2	3	4	5
38.	I regulate my own non-verbal communication (i.e., facial expressions, eye contact, etc.) in a manner that aids management of customer complaint.	1	2	3	4	5
39.	I evaluate customer behaviour during a complaint.	1	2	3	4	5
40.	I summarise the key issue and theme(s) of conversation to customer.	1	2	3	4	5
41.	I can appropriately judge when customer behaviour becomes unacceptable.	1	2	3	4	5
42.	I accurately paraphrase back to the customer what their complaint is about.	1	2	3	4	5
43.	I adhere to ANZ Bank policy regarding customer complaints.	1	2	3	4	5
44.	I keep customer informed of progress resolving complaint.	1	2	3	4	5
45.	I build customer relationships out of unsatisfied customer need.	1	2	3	4	5

<u>A reminder that coding of the questionnaire ensures anonymity</u>

Upon completion please check your code is entered correctly on the cover and send your questionnaire promptly in the provided freepost self-addressed envelope.

<u>Thank you for your time and effort</u>

Transfer of Training

Questionnaire Two

Demographic Data

All questions that refer to the training should be made with reference to the managing customer complaints training. To ensure anonymity a code has being provided with each training package. It is **important** that you insert the code **correctly** so those questionnaires from the same respondent, including questionnaire one, two, three, and four can be match up. Please **print** the code from the **cover sheet** in the spaces below: -

Training Manual Code:

Branch address (work): _____

_____

_____

Telephone Number (Work): _____

Gender: **Female ( )** **Male ( )** **(Please tick)**

Age Group: 20---25 26---30 31---35 36---40 41---45 46---50

51---55 56---60 61---65 66---70 71---75

(Please circle)

A reminder that coding of the questionnaire ensures anonymity

Please turn to the next page

Ethnic Group: European/Pakeha Maori Polynesian Asian (Please circle)
Other (Please specify): _____

Time in organisation (DD/MM/YY): _____

Position (please circle): Bank Teller Sales Officer Other(please specify)

_____

Time in current position (DD/MM/YY): _____

Department working in is: _____

Briefly, outline your job duties, tasks, & functions:

_____

_____

_____

_____

Background Data

Please tick in the adjacent bracket the response that applies to you. There are no right or wrong answers only your perceptions are sought. All individual responses will to be held in confidence and anonymity by the researcher.

1. I believe that the 'Managing Customer Complaint' training will be a worthwhile exercise in terms of improving my job performance.

(1) Yes ( )
(2) No ( )
(3) Unsure ( )

2. I believe that the 'Managing Customer Complaints' training will be tailored to my job needs.

(1) Yes ( )
(2) No ( )
(3) Unsure ( )

3. I believe that self-directed learning used in the 'Managing Customer Complaints' training is the best way to teach customer services skills.

(1) Yes ( )

(2) No ( )
(3) Unsure ( )

A reminder that coding of the questionnaire ensures anonymity

Thank you for your time and effort

Questionnaire Three
Instrument Introduction and Instructions

Instrument Introduction

There is growing interest in how to more effectively develop the knowledge and skills of employees. Of vital interest is the degree to which training programs actually help you to be more effective in your job. ***Questionnaire three*** has been designed to provide information about the characteristics of the workplace that might make training more useful.

Your cooperation in completing this questionnaire will greatly assist us in making training more effective. Contributing to this effort is simple and will require only **20-25 minutes** of your time.

Instrument Instructions

This questionnaire is to be completed six weeks after you complete questionnaire one.

Questionnaire three contains 89 items. Using the indicated scale of 1 – 5, with 1 being strongly disagree and 5 being strongly agree, to indicate the extent to which you agree or disagree with each statement. Please mark your answers by circling or checking the numbered scale to the right of each item. Your individual ratings will be kept completely confidential and **anonymous**. To ensure anonymity a code has being provided with the questionnaires on a cover sheet. It is **important** that you insert the code **correctly** so those questionnaires from the same respondent, including questionnaire one, two, three, and four can be match up. Please **print** the code from the **cover sheet** in the spaces below: -

Answer each question as honestly as you can. Your first response to the item is usually the most accurate, so trust your initial response. It is usually best to not think too long about each item.

With your assistance, the data provided by this questionnaire will be used to improve training in your organization.

Questionnaire Three

Please circle the number (1, 2, 3, 4 or 5) to the right of each item that most closely reflects your opinion about training.

1 - Strongly disagree 2 - Disagree 3 - Neither agree nor disagree
4 - Agree 5 - Strongly agree

For the following items, please think about the <u>Steps to Successful Selling 1 training module :</u>

1.	Prior to the training, I knew how the program was supposed to affect my performance.	1	2	3	4	5
2.	Training will increase personal productivity.	1	2	3	4	5
3.	When I left training, I could not wait to get back to work to try what I learned.	1	2	3	4	5
4.	I believe the training will help me do my current job better.	1	2	3	4	5
5.	I get excited when I think about trying to use my new learning on my job.	1	2	3	4	5
6.	If I successfully use my training, I will receive a salary increase.	1	2	3	4	5
7.	If I use this training I am more likely to be rewarded.	1	2	3	4	5
8.	I am likely to receive some 'perks' if I use my newly learned skills on the job.	1	2	3	4	5
9.	Before the training, I had a good understanding of how it would fit my job-related development.	1	2	3	4	5
10.	I knew what to expect from the training before it began.	1	2	3	4	5
11.	I don't have time to try to use this training.	1	2	3	4	5
12.	Trying to use this training will take too much energy away from my other work.	1	2	3	4	5
13.	The expected outcomes of this training were clear at the beginning of the training.	1	2	3	4	5

<u>A reminder that coding of the questionnaire ensures anonymity</u>

<u>Please turn to the next page</u>

1 - Strongly disagree 2 - Disagree 3 - Neither agree nor disagree
4 - Agree 5 - Strongly agree

For the following items, please think about the <u>Steps to Successful Selling 1 training module :</u>

14.	Employees in this organization are penalized for not using what they have learned in training.	1	2	3	4	5
15.	If I use what I learn in training, it will help me get higher performance ratings.	1	2	3	4	5
16.	Employees in this organization receive various 'perks' when they utilize newly learned skills on the job.	1	2	3	4	5
17.	If I do not use my training I am unlikely to get a raise.	1	2	3	4	5
18.	I am more likely to be recognized for my work if I use this training.	1	2	3	4	5
19.	My workload allows me time to try the new things I have learned.	1	2	3	4	5
20.	There is too much happening at work right now for me to try to use this training.	1	2	3	4	5
21.	If I do not use new techniques taught in training I will be reprimanded.	1	2	3	4	5
22.	Successfully using this training will help me get a salary increase.	1	2	3	4	5
23.	If I do not utilize my training I will be cautioned about it.	1	2	3	4	5
24.	When employees in this organization do not use their training it gets noticed.	1	2	3	4	5
25.	I have time in my schedule to change the way I do things to fit my new learning.	1	2	3	4	5
26.	Someone will have to change my priorities before I will be able to apply my new learning.	1	2	3	4	5
27.	I wish I had time to do things the way I know they should be done.	1	2	3	4	5
28.	My colleagues appreciate my using new skills I have learned in training.	1	2	3	4	5
29.	My colleagues encourage me to use the skills I have learned in training.	1	2	3	4	5

<u>A reminder that coding of the questionnaire ensures anonymity</u>

<u>Please turn to the next page</u>

1 - Strongly disagree 2 - Disagree 3 - Neither agree nor disagree
4 - Agree 5 - Strongly agree

For the following items, please think about the <u>Steps to Successful Selling 1 training module :</u>

30.	At work, my colleagues expect me to use what I learn in training.	1	2	3	4	5
31.	My colleagues are patient with me when I try out new skills or techniques at work.	1	2	3	4	5
32.	My supervisor meets with me regularly to work on problems I may be having in trying to use my training.	1	2	3	4	5
33.	My supervisor meets with me to discuss ways to apply training on the job.	1	2	3	4	5
34.	My supervisor will object if I try to use this training on the job.	1	2	3	4	5
35.	My supervisor will oppose the use of techniques I learned in this training.	1	2	3	4	5
36.	My supervisor thinks I am being less effective when I use the techniques taught in this training.	1	2	3	4	5
37.	My supervisor shows interest in what I learn in training.	1	2	3	4	5
38.	My supervisor opposes the use of the techniques I learned in training.	1	2	3	4	5
39.	My supervisor sets goals for me which encourage me to apply my training on the job.	1	2	3	4	5
40.	My supervisor lets me know I am doing a good job when I use my training.	1	2	3	4	5
41.	My supervisor will not like it if I do things the way I learned in this training.	1	2	3	4	5
42.	My supervisor doesn't think this training will help my work.	1	2	3	4	5
43.	My supervisor helps me set realistic goals for job performance based on my training.	1	2	3	4	5

<u>A reminder that coding of the questionnaire ensures anonymity</u>

<u>Please turn to the next page</u>

1 - Strongly disagree 2 - Disagree 3 - Neither agree nor disagree
4 - Agree 5 - Strongly agree

For the following items, please think about the <u>Steps to Successful Selling 1 training module :</u>

44.	My supervisor would use different techniques than those I would be using if I use my training.	1	2	3	4	5
45.	My supervisor thinks I am being ineffective when I use the techniques taught in training.	1	2	3	4	5
46.	My supervisor will probably criticize this training back on the job.	1	2	3	4	5
47.	The instructional aids (equipment, illustrations, etc.) used in training are very similar to real things I use on the job.	1	2	3	4	5
48.	The methods used in training are very similar to how we do it on the job.	1	2	3	4	5
49.	I like the way training seems so much like my job.	1	2	3	4	5
50.	I will have the things I need to be able to use this training.	1	2	3	4	5
51.	I will be able to try out this training on my job.	1	2	3	4	5
52.	The activities and exercises the trainers used helped me know how to apply my learning on the job.	1	2	3	4	5
53.	It is clear to me that the people facilitating the training understand how I will use what I learn.	1	2	3	4	5
54.	The facilitator(s) used lots of examples that showed me how I could use my learning on the job.	1	2	3	4	5
55.	The way the facilitator(s) training material was taught made me feel more confident I could apply it.	1	2	3	4	5
56.	The resources I need to use what I learned will be available to me.	1	2	3	4	5
57.	I will get opportunities to use this training on my job.	1	2	3	4	5
58.	What is taught in training closely matches my job requirements.	1	2	3	4	5
59.	The situations used in training are very similar to those I encounter on my job.	1	2	3	4	5

<u>A reminder that coding of the questionnaire ensures anonymity</u>

<u>Please turn to the next page</u>

1 - Strongly disagree 2 - Disagree 3 - Neither agree nor disagree
4 - Agree 5 - Strongly agree

For the following items, please think about the <u>Steps to Successful Selling 1 training module :</u>

60.	There are enough human resources available to allow me to use skills acquired in training.	1	2	3	4	5
61.	At work, budget limitations will prevent me from using skills acquired in training.	1	2	3	4	5
62.	Our current staffing level is adequate for me to use this training.	1	2	3	4	5
63.	It will be hard to get materials and supplies I need to use the skills and knowledge learned in training.	1	2	3	4	5

Please complete questions 64 - 89 on the following pages.
Note that these items have new instructions
Please read them carefully

<u>A reminder that coding of the questionnaire ensures anonymity</u>

1 - Strongly disagree 2 - Disagree 3 - Neither agree nor disagree
4 - Agree 5 - Strongly agree

For the following items, please THINK ABOUT TRAINING IN GENERAL in your organization

64.	The organization does not really value my performance.	1	2	3	4	5
65.	My job performance improves when I use new things that I have learned.	1	2	3	4	5
66.	The harder I work at learning, the better I do my job.	1	2	3	4	5
67.	For the most part, the people who get rewarded around here are the ones that do something to deserve it.	1	2	3	4	5
68.	When I do things to improve my performance, good things happen to me.	1	2	3	4	5
69.	Training usually helps me increase my productivity.	1	2	3	4	5
70.	People around here notice when you do something well.	1	2	3	4	5
71.	The more training I apply on my job, the better I do my job.	1	2	3	4	5
72.	My job is ideal for someone who likes to get rewarded when they do something really good.	1	2	3	4	5
73.	People in my group generally prefer to use existing methods, rather than try new methods learned in training.	1	2	3	4	5
74.	Experienced employees in my group ridicule others when they use techniques they learn in training.	1	2	3	4	5
75.	People in my group are open to changing the way they do things.	1	2	3	4	5
76.	People in my group are not willing to put in the effort to change the way things are done.	1	2	3	4	5
77.	My workgroup is reluctant to try new ways of doing things.	1	2	3	4	5
78.	My workgroup is open to change if it will improve our job performance.	1	2	3	4	5
79.	After training, I get feedback from people on how well I am applying what I learn.	1	2	3	4	5

A reminder that coding of the questionnaire ensures anonymity

Please turn to the last page

1 - Strongly disagree 2 - Disagree 3 - Neither agree nor disagree
4 - Agree 5 - Strongly agree

For the following items, please THINK ABOUT TRAINING IN GENERAL in your organization

80.	People often make suggestions about how I can improve my job performance.	1	2	3	4	5
81.	I get a lot of advice from others about how to do my job better.	1	2	3	4	5
82.	I am confident in my ability to use new skills at work.	1	2	3	4	5
83.	I never doubt my ability to use newly learned skills on the job.	1	2	3	4	5
84.	I am sure I can overcome obstacles on the job that hinder my use of new skills or knowledge.	1	2	3	4	5
85.	At work, I feel very confident using what I learned in training even in the face of difficult or taxing situations.	1	2	3	4	5
86.	People often tell me things to help me improve my job performance.	1	2	3	4	5
87.	When I try new things I have learned, I know who will help me.	1	2	3	4	5
88.	If my performance is not what it should be, people will help me improve.	1	2	3	4	5
89.	I regularly have conversations with people about how to improve my performance.	1	2	3	4	5

A reminder that coding of the questionnaire ensures anonymity

Upon completion please check your code is entered correctly on the cover and send your questionnaire promptly in the provided freepost self-addressed enveloped.

Thank you for your time and effort

Questionnaire Four
Instrument Introduction and Instructions

Instrument Introduction

There is growing interest in how to more effectively develop the knowledge and skills of employees. Of vital interest is the degree to which training programs actually help you to be more effective in your job. ***Questionnaire four*** has been designed to provide information about trainee's perceptions of their effective use of recently learned skills back on the job. It is important to remember that the trainee is only one of many factors that affect the use of recent training on the job. It is not an examination and will in no way affect your employment.

Your cooperation in completing this questionnaire will greatly assist us in making training more effective. Contributing to this effort is simple and will require only **10-15 minutes** of your time.

Instrument Instructions

This questionnaire is to be completed ten weeks after questionnaire one.

Questionnaire four contains 45 items. Using the indicated scale of 1 – 5, with 1 being not practice effectively and 5 being practice very effectively to indicate the extent to which you feel you manage customer complaints on the job. Please mark your answers by circling or checking the numbered scale to the right of each item. Your individual ratings will be kept completely confidential and **anonymous**. To ensure anonymity a code has being provided with the questionnaires on a cover sheet. It is **important** that you insert the code **correctly** so those questionnaires from the same respondent, including questionnaire one, two, three, and four can be match up. Please **print** the code from the **cover sheet** in the spaces below: -

Answer each question as honestly and as accurately as you can. Your first response to the item is usually the most accurate, so trust your initial response. It is usually best to not think too long about each item.

With your assistance, the data provided by this questionnaire will be used to improve training in your organization.

Questionnaire Four

Please circle the number (1, 2, 3, 4, or 5) to the right of each statement that most closely indicates how effectively you practice that item **on the job** when managing a customer complaint. Please note that '*effective*' in this situation refers to '*how capable you are of producing a result that is desirable for the bank*', while '*practice*' in the present situation refers to '*the act of applying the item in your work*'.

Please complete it without reference to colleagues and the 'Managing Customer Complaints' training manual or any other material. The more honestly and accurately you respond to each item the better placed your organisation will be to improve future training. A reminder that your individual responses will be held in confidence and anonymity by the researcher at Massey University until the conclusion of the investigation upon which they will be destroyed.

1 – Not practice effectively 2 – Practice less than moderately effective
3 – Unable to judge (effectiveness &/or practice)
4 – Practice moderately effective 5 – Practice very effectively

For the following items, please think about <u>Managing a Customer Complaint</u> :

1.	I satisfy customer complaints in a timely manner.	1	2	3	4	5
2.	I keep an accurate diary of customer complaint.	1	2	3	4	5
3.	I practice an effective standardised personal response to bank queues.	1	2	3	4	5
4.	I take ownership of a customer complaint.	1	2	3	4	5
5.	I can recognise customer complaint disguised as a comment.	1	2	3	4	5
6.	I practice an effective standardised personal response to bank mistakes.	1	2	3	4	5
7.	I anticipate what the customer hopes to gain from their behaviour.	1	2	3	4	5
8.	I can accurately estimate my own capacity to manage a customer complaint.	1	2	3	4	5
9.	I practice an effective standardised personal response to bank fee increases.	1	2	3	4	5
10.	I formulate a plan to manage the customer complaint.	1	2	3	4	5
11.	I label behaviour customer is using.	1	2	3	4	5
12.	I know bank products well enough to manage a typical complaint.	1	2	3	4	5
13.	I remain personally detached from bad customer behaviour.	1	2	3	4	5

<u>A reminder that coding of the questionnaire ensures anonymity</u>

<u>Please turn to the next page</u>

1 – Not practice effectively 2 – Practice less than moderately effective
3 – Unable to judge (effectiveness &/or practice)
4 – Practice moderately effective 5 – Practice very effectively

For the following items, please think about <u>Managing a Customer Complaint</u> :

14.	I practice an effective standardised personal response to bank fees.	1 2 3 4 5
15.	I follow correct bank steps in referral of a customer complaint.	1 2 3 4 5
16.	I can appropriately judge when customer behaviour becomes unacceptable.	1 2 3 4 5
17.	I can appropriately recognise the need for the National Manager of Customer Relations.	1 2 3 4 5
18.	I summarise the key issue and theme(s) of conversation to customer.	1 2 3 4 5
19.	I show sincerity when listening to a complaint.	1 2 3 4 5
20.	I attempt to manage awkward customer behaviour using management technique – fielding, repeated statements, or fogging.	1 2 3 4 5
21.	I identify the key issue in the customer complaint.	1 2 3 4 5
22.	I can correctly estimate customer's state (emotional, rational, or controller).	1 2 3 4 5
23.	I can effectively manage the over-talkative customer.	1 2 3 4 5
24.	I adhere to ANZ Bank policy regarding customer complaints.	1 2 3 4 5
25.	I make an unqualified apology to dissatisfied customers.	1 2 3 4 5
26.	I inquire as to what would satisfy the customer.	1 2 3 4 5
27.	I keep customer informed of progress resolving complaint.	1 2 3 4 5
28.	I move customer complaints into sales opportunity.	1 2 3 4 5
29.	I can judge when it is necessary to refer the customer complaint to a higher authority.	1 2 3 4 5
30.	I actively listen to customer complaint.	1 2 3 4 5
31.	I can accurately identify customer need(s).	1 2 3 4 5
32.	I evaluate customer behaviour during a complaint.	1 2 3 4 5
33.	I follow through on solutions agreed upon with customer.	1 2 3 4 5

<u>A reminder that coding of the questionnaire ensures anonymity</u>

<u>Please turn to the next page</u>

1 – Not practice effectively 2 – Practice less than moderately effective
3 – Unable to judge (effectiveness &/or practice)
4 – Practice moderately effective 5 – Practice very effectively

For the following items, please think about <u>Managing a Customer Complaint</u> :

34.	I can take control of a complaint situation when a customer is in an emotional state.	1	2	3	4	5
35.	I satisfy customer complaints beyond the expectations of the customer.	1	2	3	4	5
36.	I correctly identify a rational state and know when to negotiate a solution.	1	2	3	4	5
37.	I can retain customer(s) whose needs have not been met.	1	2	3	4	5
38.	I accurately paraphrase back to the customer what their complaint is about.	1	2	3	4	5
39.	I response appropriately to inquiries about the Banking Ombudsman.	1	2	3	4	5
40.	I regulate my non-verbal communication (i.e., facial expressions, eye contact, etc.) in a manner that aids management of customer complaint.	1	2	3	4	5
41.	I can coherently describe ANZ Bank policy for customer complaints to customers.	1	2	3	4	5
42.	I move customer from an emotional sate to a rational state.	1	2	3	4	5
43.	I empathise with a dissatisfied customer.	1	2	3	4	5
44.	I identify the type of behaviour customer is using.	1	2	3	4	5
45.	I build customer relationships out of unsatisfied customer need.	1	2	3	4	5

<u>A reminder that coding of the questionnaire ensures anonymity</u>

Upon completion please check your code is entered correctly on the cover and send your questionnaire promptly in the provided freepost self-addressed envelope.

<u>Thank you for your time and effort</u>

Appendix V
Background Interviews: Training Designer & HR Manager

Training Questions

Interview Questions for Training Facilitator and Human resources Manager

Re: *The handling Customer Complaints Module of the Sales Accreditation Framework.*

Training Design Questions

(1) Was training 'Needs Analysis' conducted for the development of this training?

(2) If so, was 'Needs Analysis' conducted at the organisational, task, and personnel levels?

(3) What are the instructional objectives of this training? Describe.

(4) What are the intended learning outcomes of the training? Describe.

(5) Did trainees participate in any part of the training design?

(6) What learning principals (if any) were intentionally used in the design of this training?

(7) What learning theory(s) (if any) underlies the design of this training? Describe.

(8) What were the material requirements for the development of this training? Describe.

(9) From what source were training material derived? Desribe.

(10) What were the staff requirements for the design of this training?

(11) In what way do training activities reflect tasks and functions on the job? Describe

The training facilitator

(12) What are the qualifications of the training designer?

(13) What experience does the training designer have in the design and development of training interventions? Describe.

(14) What experience (type) does the training designer have in customer communication? Describe

(15) What experience does the training designer have in the banking industry? Describe.

(16) What factor(s) determined the selection of the training designer? Describe

Training Delivery Questions

(17) How was training delivered to trainees'? I.e. tutorials, correspondence?

(18) On what criteria were employees' selected for this training? Describe.

(19) Is training participation voluntary or assigned?

(20) How long is the training course, or how long have trainees' got to finish training?

(21) What is the target audience for this type of training? Describe.

(22) Will there be post-training follow-up exercises? Describe.

(23) Was there be a dissemination of training information to trainees before training?

(24) What strategies were utilised to facilitate the application of new training on the job? Describe.

(25) Are trainees' provided with opportunities to practice new learning during the training? Describe.

(26) Are employees to be trained permanent, temporary, contract, or part-time?

(27) Was there any resistance to the training? From whom, why? Describe.

(28) In what manner will new learning be supported back on the job?

(29) Were follow-up and debriefing activities conducted after training? Describe.

(30) Do trainees receive an orientation and adjustment period after the training? Please describe.

(31) How does training activities and material embody training objectives and goals? Describe.

Training Evaluation Questions

(32) Will the training be evaluated? Describe.

(33) What criterion does ANZ intend to use for the evaluation of this training? Describe.

(34) How are training outcomes assessed? Describe

(35) How is training effectiveness determined? Describe.

(36) What are the anticipated work performance benefits of this training?

(37) What are the anticipated economic benefits of this training?

(38) What are the anticipated social benefits of this training?

(39) What are the overall management expectations of this training? Describe

(40) Does training content reflect instructional and learning objectives?

(41) Has the training been cost-effective? Describe.

(42) What are the cost-benefits of this training? Describe.

(43) Has training been conducted within its budget?

ANZ Training Charter/Mission

(44) Why does ANZ undertake employee training and development? Describe.

(45) What is ANZ mission? Describe.

(46) Please describe or supply ANZ's training policy?

(47) What was ANZ's motive for conduct the Sales Accreditation framework? Describe.

(48) What was the motive to include the Handling Customer Complaints Module in the Sales Accreditation framework? Describe.

(49) What are ANZ's overall training goals and strategies? Describe.

(50) Is this training supported and endorsed by top management within ANZ?

(51) How is the importance of training to ANZ communicated to employees'?

(52) Was training implementation and design influenced by political factors?

(53) Does ANZ promote a continuous learning culture? Describe.

The link between training and trainee's job

(54) Are there any rewards linked to successful completion of training? Describe.

(55) Do training objectives reflect the job specifications of targeted trainees'?

(56) What incentive do employees' have to use newly acquired skills? Describe.

(57) Are training outcomes incorporated into employee KPI's of their PA's?

(58) Are trained skills incorporated into job description of trainees'?

(59) How are training activities linked to the job situation?

(60) Are the trainees provided with opportunities to practice new skills on the job?

Research Requirements

(1) Any test or examination and training selection criterion for the training- Both pre and post.

(2) The final number of training packs with surveys sent out, and left over.

(3) The total number of control group surveys sent out.

(4) A letter of explanation as to why survey response was poor. I.e. because new computer system and organisational change. (Not due to complexity of survey. I will mention this myself).

(5) A letter of explanation as to how long employees had to do the training (Add to previous letter)

(6) Need organizational structure chart.

(7) Any relevant literature on ANZ training and development.

(8) Need job descriptions and job specifications for teller, information officers, and sales officers.

(9) A copy of the survey packs (for the control and treatment group) that was sent out with the training, including Vic Hewsons endorsement.

(10) A copy of the sales accreditation framework, plus any literature outline its' objectives etc.

(11) Left over training survey packs?

Appendix VI

LTQ
Learning Transfer Questionnaire

Administrators Guide

Elwood F. Holton III, Ed.D.
Associate Professor, Human Resource Development
Louisiana State University

Reid A. Bates, Ph.D.
Assistant Professor, Human Resource Development
Louisiana State University

Human Resource Development Program
142 Old Forestry Building
Louisiana State University
Baton Rouge, LA 70803
(504) 388-2456 or 2457
(504) 388-5755 fax
holton@linknet.net
gwennreid@linknet.net

Learning Transfer Questionnaire (LTQ)
Instrument Introduction and Instructions

Instrument Introduction

There is growing interest in how to more effectively develop the knowledge and skills and employees. Of vital interest is the degree to which learning programs actually help you be more effective in your job. The ***Learning Transfer Questionnaire*** has been designed to provide information about the characteristics of the workplace that might make training more useful.

Your cooperation in completing this questionnaire will greatly assist us in making training more effective. Contributing to this effort is simple and will require only 20-25 minutes of your time

Instrument Instructions

The ***Learning Transfer Questionnaire*** contains 89 items. Using the indicated scale of 1 – 5, with 1 being strongly disagree and 5 being strongly agree, indicate the extent to which you agree or disagree with each statement. Please mark your answers by circling or checking the numbered scale to the right of each item. Your individual ratings will be kept completely confidential.

Answer each question as honestly as you can. Your first response to the item is usually the most accurate, so trust your initial response. It is usually best to not think too long about each item.

With your assistance, the data provided by this questionnaire will be used to improve training in your organization.

Learning Transfer Questionnaire (LTQ)
Scale Definitions

Usage Notes:

The Learning Transfer Questionnaire (LTQ) is a fourth generation instrument and is based on extensive research. The scale definitions listed below are sound based on factor analysis with a database of over 1,600 respondents representing a wide variety of industries, jobs, company types, and levels of employees. Because we are continually working to improve the statistical properties of the scales, some new items have been added to certain scales. Please note that these are used for research purposes and should not be tabulated in your results.

Factor	LTQ Item Numbers	For Research Purposes Only USERS IGNORE
Specific Training Program Scales		
Learner Readiness	1, 9, 10, 13	
Motivation to Transfer Learning	2, 3, 4, 5	
Personal Outcomes-Positive	6, 16, 17,	7, 8, 15, 18, 22
Personal Outcomes-Negative	14, 21, 23, 24	
Personal Capacity for Transfer	19, 25, 26, 27	11, 12, 20
Peer Support	28, 29, 30, 31	
Supervisor/Manager Support	32, 33, 37, 39, 40, 43	
Supervisor/Manager Sanctions	38, 44, 45,	34, 35, 36, 41, 42, 46
Perceived Content Validity	47, 48, 49, 58, 59	
Transfer Design	52, 53, 54, 55	
Opportunity to Use Learning	56, 60, 61, 63	50, 51, 62, 57
Training in General Scales		
Transfer Effort—Performance Expectations	65, 66, 69, 71	
Performance—Outcomes Expectations	64, 67, 68, 70, 72	
Resistance/Openness to Change	73, 74, 75, 76, 77, 78	
Performance Self-Efficacy	82, 83, 84, 85	
Feedback/Performance Coaching	79, 86, 87, 89	80, 81, 88

LTQ Scale Descriptions

Scale Name	Scale Definition	Scale Description
Trainee Characteristics Scales		
Learner Readiness	The extent to which individuals are prepared to enter and participate in a training program.	This factor addresses the degree to which the individual had the opportunity to provide input prior to the training, knew what to expect during the training, and understood how training was related to job-related development and work performance.
Performance Self-Efficacy	An individuals general belief that they are able to change their performance when they want to.	The extent to which individuals feel confident and self-assured about applying new abilities in their jobs, and can overcome obstacles that hinder the use of new knowledge and skills.
Motivation Scales		
Motivation to Transfer Learning.	The direction, intensity and persistence of effort toward utilizing in a work setting skills and knowledge learned in training.	The extent to which individuals are motivated to utilize learning in their work. This includes the degree to which individuals feel better able to perform, plan to use new skills and knowledge, and believe new skills will help them to more effectively perform on-the-job
Transfer Effort—Performance Expectations	The expectation that effort devoted to transferring learning will lead to changes in job performance.	The extent to which individuals believe that applying skills and knowledge learned in training will improve their performance. This includes whether an individual believes that investing effort to utilize new skills has made a difference in the past or will affect future productivity and effectiveness.
Performance—Outcomes Expectations	The expectation that changes in job performance will lead to outcomes valued by the individual.	The extent to which individuals believe the application of skills and knowledge learned in training will lead to recognition they value. This includes the extent to which organizations demonstrate the link between development, performance, and recognition, clearly articulate performance expectations, recognize individuals when they do well, reward individuals for effective and improved performance, and create an environment in which individuals feel good about performing well.

Work Environment Scales		
Feedback/Performance Coaching	Formal and informal indicators from an organization about an individuals job performance	The extent to which individuals receive constructive input, assistance, and feedback from people in their work environment (peers, employees, colleagues, managers, etc..) when applying new abilities or attempting to improve work performance. Feedback may be formal or informal cues from the workplace.
Supervisor/Manager Support	The extent to which managers support and reinforce the use of learning on-the-job.	This includes managers' involvement in clarifying performance expectations after training, identifying opportunities to apply new skills and knowledge, setting realistic goals based on training, working with individuals on problems encountered while applying new skills, and providing feedback when individuals successfully apply new abilities.
Supervisor/Manager Sanctions	The extent to which individuals perceive negative responses from managers when applying skills learned in training.	This includes when managers oppose the use of new skills and knowledge, use techniques different from those taught in training, do not assist individuals in identifying opportunities to apply new skills and knowledge, or provide inadequate or negative feedback when individuals successfully apply learning on-the-job.
Peer Support	The extent to which peers reinforce and support use of learning on-the-job.	This includes the degree to which peers mutually identify and implement opportunities to apply skills and knowledge learned in training, encourage the use of or expect the application of new skills, display patience with difficulties associated with applying new skills, or demonstrate appreciation for the use of new skills
Resistance/openness to Change	The extent to which prevailing group norms are perceived by individuals to resist or discourage the use of skills and knowledge acquired in training.	This includes the work groups' resistance to change, willingness to invest energy to change, and degree of support provided to individuals who use techniques learned in training.

Personal Outcomes-Positive	The degree to which applying training on the job leads to outcomes that are positive for the individual.	Positive outcomes include: increased productivity and work effectiveness, increased personal satisfaction, additional respect, a salary increase or reward, the opportunity to further career development plans, or the opportunity to advance in the organization.
Personal Outcomes—Negative.	The extent to which individuals believe that applying skills and knowledge learned in training will lead to outcomes that are negative.	Negative outcomes include: reprimands, penalties, peer resentment, too much new work, or the likelihood of not getting a raise if newly acquired skills are utilized
Ability Scales		
Opportunity to Use Learning	The extent to which trainees are provided with or obtain resources and tasks on the job enabling them to use the skills taught in training.	This includes an organization providing individuals with opportunities to apply new skills, resources needed to use new skills (equipment, information, materials, supplies), and adequate financial and human resources.
Personal Capacity for Transfer	The extent to which individuals have the time, energy and mental space in their work lives to make changes required to transfer learning to the job.	This factor addresses the extent to which individuals' work load, schedule, personal energy, and stress-level facilitate or inhibit the application of new learning on-the-job.
Perceived Content Validity	The extent to which the trainees judge the training content to accurately reflect job requirements.	This factor addresses the degree to which skills and knowledge taught are similar to performance expectations as well as what the individual needed to perform more effectively. It also addresses the extent to which instructional methods, aids, and equipment used in training are similar to those used in an individual's work environment.
Transfer Design.	The extent to which training has been designed to give trainees the ability to transfer learning to job application and the training instructions match the job requirements	The extent to which the training program is designed to clearly link learning with on-the-job performance through the use of clear examples, methods similar to the work environment, and activities and exercises that clearly demonstrate how to apply new knowledge and skills.

Learning Transfer Questionnaire Agreement

Permission is hereby granted to use the Learning Transfer Questionnaire (LTQ), an organizational assessment instrument, owned by Elwood F. Holton III and Reid A. Bates. Permission is granted to the following people for the timeframe, payment and purposes specified below:

Permission granted to: *(Name, company, address, phone number, e-mail, etc.)*	
Purpose	
Time Period	
Other Conditions	
Payment	

It is understood that, by agreeing to use the Learning Transfer Questionnaire, you are accepting the following conditions:

1. Any use other than that specified above is prohibited without to prior written authorization by the authors (E. F. Holton III & R. A. Bates).

2. No changes whatsoever can be made to the LTQ without prior written consent of the authors.

3. The authors retain full copyright authority for the LTQ. Therefore, the LTQ cannot be copied or reproduced in any fashion without the authors prior written consent. Every copy must carry the following copyright notice.

Copyright 1998, Elwood F. Holton III and Reid A. Bates, all rights reserved

4. Discussion and presentation of the LTQ will accurately reflect the composition of the instrument and will use only original scale names, scale definitions, and item groupings.

5. A copy of all data collected with the instrument are given to the authors free of charge and in a timely manner. This data will only be used for research purposes and will not be reported in such a manner that would identify individual organizations, without written permission of the organization.

6. Unless otherwise acceded, the authors will share in the authorship of any publications which result from the use of the instrument or the data collected with the LTQ.

7. The authors reserve the right to withdraw the LTQ from use at any time if any terms or conditions of this agreement are violated.

8. Any reports published or presented resulting from data collected using the LTQ shall clearly indicate that instrument authors did not participate in preparing the reports.

Signed:

LTQ user (print name)	
Title	
LTQ user signature	Date
Elwood F. Holton III or Reid A. Bates, LTQ authors	Date

Appendix VII
Perceived Transfer Questionnaire (PTQ)
Scale Definitions & Descriptions

Description

The Perceived Transfer Questionnaire (PTQ) is a customized instrument, designed to measure trainees' perceptions of training transfer. The scale contains 45 items anchored on five-point Likert-type scales. The scale was derived from a content analysis of 'The Managing Customer Complaints' training program, a review by subject matter experts (SME's), and Ford & Wroten's (1984) content validity ration (CVR). The PTQ was used as a pre-test and post-test instrument, with items been randomized in the second administration. For further information, see Chapter 7.

Factors	PTQ Item Numbers	
	Pre-Test	Post-test
Manage to maintain customer (1.1)	12, 13, 37, 45	1, 35, 37, 45
Recognises Signs of Complaint (1.3)	16, 35	5, 31
Dynamics of conflict situation (2.1)	7, 11, 14, 30	22, 34, 36, 42
Actively listens on conflict situation (2.2)	1, 2, 40, 42	18, 19, 30, 38
Interview plan for customer (3.1)	5, 8, 9, 20, 23, 29, 34, 44	4, 10, 21, 25, 26, 27, 33, 43
Moves complaint to sales opportunity (3.2)	22	28
Response to 4 common complaints (4.1)	15, 18, 19, 27, 31	3, 6, 9, 12, 14
Recognises behaviour intended to influence (5.1)	6, 32, 33, 39	7, 13, 32, 44
Labels customer behaviour (5.2)	4, 10, 28, 41	11, 16, 20, 23
Recognizes Non-verbal communication (6.1)	38	40
Practice Banks complaint policy (7.1)	24, 36, 43	2, 24, 41
ID need to refer complaints (7.2)	17, 21, 25	8, 15, 29
ID need for National Manager Customer Relations (7.3)	3	17
Response regard: Bank Ombudsman (7.4)	26	39

PTQ Scale Descriptions & Definitions

Content Analysis for Perceived Training Transfer Scale

Unit 1: - Objective 1
skills and questions for Perceived training transfer

1.1 Managers customer complaints to maintain customers.- improving bank/ customer relationship (customer satisfaction)
1.2 Turns a customer complaint into a sales opportunity.- recognising and meeting customer needs.
1.3 Recognises and effectively (managing) responding to the signs of a customer complaint.- concerns. comments, perceptions, beliefs, misunderstanding, dissatisfaction.

Skill: -
1.1.1 Retention of customer(s) who's needs have not being met.
1.1.2 Builds customer relationship out of an unsatisfied need. Satisfies customers complaint promptly to a point beyond customer(s) expectations.

1.2.1 Turns customer complaint into a sales opportunity.

1.3.1 Ability to recognise a customer complaint disguised as a comment.
1.3.2 Identifies customer needs and knows how to respond in a satisfactory manner.

Unit 2: - Objective 2

2.1 Dynamic of conflict situations. -Able to recognise and appropriately respond to the customers state (emotional, rational, controller) so that effective communication can start. Interpersonal Skill - Specifically, can negotiate customer from emotional state into a rational state by taking control (controller and personal ownership of the complaint).

2.2 Actively listens in a conflict situation. – Identify customers key issue. Signs of active listening. Listen, Paraphrase, reflect, summarise. Conveys sincerity and take complaint seriously.

Skill: -
2.1.1 Correctly identifies Customers State of mind.
2.1.2 Ability to move a dissatisfied customer from the emotional to rational state.
2.1.3 Able to take control of the situation.
2.1.4 Identifies the rational state and knows when to negotiate a solution.

2.2.1 Active listens to customer complaints.
2.2.2 Can accurately identify customers needs
2.2.3 Paraphrases what the customer has said.
2.2.4 Summarise the key issues and themes of the conversation back to customer.
2.2.5 Shows sincerity and seriousness in their listening.

Unit 3: - Objective 3:

3.1 Able to plan the stage for interviewing a difficult customer. Applies a 6 stage formula for managing a customer complaint. 1. Empathetic apology without qualification. 2. Moves customer from emotional to rational state. 3. Identifies the key issue(s) of customers complaint. 4. Find out what the customer expects you to do about it while being mindful of bank policy. 5. Agree of a realistic solution and see it through. 6. Follow through and keep

the customer informed (Diarise & monitor). Take ownership for resolving the complaint or direct it to the appropriate person.

3.2 Ability to move from the managing of customer complaint stage into a sales opportunity.

Skill: -
3.1.1 Takes ownership of the complaint.
3.1.2 Able to make an unqualified apology for customers inconvenience.
3.1.3 Shows /can empathizes with customer.
3.1.4 Correctly identifies complaint.
3.1.5 Enquires as to what would satisfy the customer.
3.1.6 Negotiates a solution and follows it through.
3.1.7 Keeping customer informed.
3.1.8 Formulates a plan to manage the customer complaint.

3.2.1 Can move customer complaint into a sales opportunity.

Unit 4: - Objective 4:

4.1 Developed a personal response to four of the most common complaints. fees, fee increases, queues, & mistakes.

Skills: -
4.1.1 Degree to which bank officer has developed an effective personal response to bank fees.
4.1.2 Degree to which bank officer has developed an effective personal response to bank fee increases.
4.1.3 Degree to which bank officer has developed an effective personal response to bank queues.
4.1.4 Degree to which bank officer has developed an effective personal response to bank mistakes.
4.1.5 Knows bank products well enough to execute response to typical complaints.

Unit 5: - Objective 5:

Objective: -
5.1 Correctly recognises customer's behaviours and how they are attempting to influence you. Evaluate customer's behaviour and what they hope to gain from it – visualizes the outcomes of the behaviour.
5.2 Labels the behaviour & applies the appropriate response to counter it – cracked record, fielding, fogging. Behaviour –Angry customer, aggressive customer, over-talkative customer.

Skills: -
5.1.1 Evaluate customer behaviour and identify the type of behaviour customer is using.
5.1.2 Anticipates what customer hopes to gain from behaviour.
5.1.3 Ability to remain personally detached from customer's behaviour.
5.2.1 Ability to apply techniques for managing awkward customer behaviour.- repeating statements, fielding, & fogging.
5.2.2 Able to correctly label behaviour customer is using.
5.2.3 Can correctly judge aggressive, threatening, rude, abuse, or sexual customer behaviour and the point at which external assistance should be sort.
5.2.4 Reacts appropriately to over-talkative customers.

Unit 6: - Objective 6:

Objective: -

6.1 Correctly recognises non-verbal communication and considers its effects on managing the customer complaint. Learns how to control the effects of their own NVC on the management of the customer complaint. Six types- body language –facial & posture, appearance, voice, space, environment, time.

Skills. -

6.1.1 Regulates non-verbal communication in a manner that aids management of customer complaint.

6.1.2 Managers cultural difference in non-verbal communication.

Unit 7: - Objective 7:

Unit 7: - Objective 7:

7.1 Practices the ANZ Bank's policy regarding customer complaints. – Code of practice & diarise complaint accurately. Diary- date, name, complaint, branch, action, response, completed.

7.2 Identifies the need to refer customer complaint and follows the process to refer customer in higher authority. – identify your capacity to manage the complaint, identifies and then refers or takes ownership. Chain of responsibility.

7.3 Recognizes the need for the National Manager of Customer Relations and identifies how this person can help.

7.4 Responds appropriately to Enquirer about the Banking Ombudsman.-

Skills: -

7.1.1 Applies ANZ Bank policy regarding customer complaints.

7.1.2 Able to describe the ANZ Bank policy for customer complaints to customer.

7.1.3 While managing the customer could accurately diaries their complaint.

7.2.1 Identify when it is necessary to refer a customer complaint to a higher authority.

7.2.2 Follows the correct steps in referral of customer complaints.

7.2.3 Identifies own capacity to manage a customer complaint.

7.3.1 Recognizes the need for the National Manager of Customer Relations & identifies how this person can help.

7.4.1 Responds appropriately to enquiries about the Banking Ombudsman.