

THE EFFECTIVE TRANSFER OF MANAGERIAL TRAINING
TO THE WORK ENVIRONMENT

by

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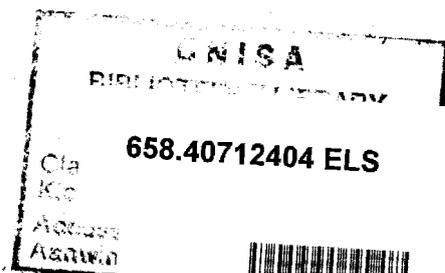
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ABSTRACT

Experience and previous research indicate that the effective transfer of management training to the work environment requires a holistic approach, embracing several important factors. These include interpersonal skills, resistance to change, mentoring, attitudes towards training, and organizational climate and culture.

During this investigation a brief, flexible treatment programme was drawn up. This involved discussing the application of managerial skills with trainees who had completed a management training course some time ago, in the presence of their supervisors. Other activities included in the treatment ranged from retraining to psychotherapy.

The treatment was applied to 32 trainees. Some three months later a role play situation and questionnaire were used to assess their application of the skills taught during management training in their work, in comparison with an untreated control group. The results indicate that the treatment programme resulted in much improved transfer of managerial training to the work environment.

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CHAPTER ONE

INTRODUCTION

A long standing problem associated with managerial training is the lack of discernable transfer of the skills and knowledge learned during training to the job environment. Gresse (1988) remarked that 87% of this knowledge and skill is lost - this represents an unacceptable waste of costly training resources. Many ideas and suggestions have been mooted, much has been published, and all the seemingly appropriate questions have been asked and answered, but a practical, realistic method of transferring managerial training has still to be devised, implemented and proved scientifically valid. The many attempts that have been made to date, either had important design problems or did not satisfactorily address the many relevant variables. Further research on this problem is therefore indicated.

Zemke and Gunkler (1985) could find no agreement on the definition or measurement of the transfer of managerial training. Kirkpatrick (1985) regards transfer as a transition between learning something new and any resultant changes in behaviour on the job. Goldstein (1978), Nienstedt (1979) and Thlopane (1979) extend this description to include the fact that such transfer occurs notwithstanding the norms and culture of the workplace. This latter point is debatable and for the purpose of this research, the transfer of managerial training will refer to the tailoring of the knowledge and skills gained in a managerial training course to each trainee's specific job in order to improve performance towards attaining the organization's goals.

The evaluation of a managerial training course should include the extent to which the skills and knowledge are transferred to the work environment. For example, Rae (1985) regards the evaluation of a managerial training course as the assessment of the total value of the training course in social and financial terms - the total cost and total benefits and not just the achievement of course objectives. Fisher and Weinberg (1988),

Hamblin (1972) and Robinson (1984) propose that it is not possible to measure this total effect. They define evaluation as any attempt to obtain information on the effects of the managerial training course and the objective assessment of the value of training in the light of that information. This includes the setting of training objectives and the validation of training in terms of those objectives.

Hamblin (1972) and Kirkpatrick (1959) propose evaluating a managerial training course against at least four criteria : Reaction, Learning, Behaviour and Results. The Reaction criterion indicates the attitudes of the trainees towards the managerial training course. Trainees who enjoyed the course and found its contents acceptable are more likely to benefit from it, although there is no assurance that the trainees will have learned the contents of the course to a desired level. Reaction is easily measured by means of an anonymous questionnaire completed by the trainees at the end of the presentation of the managerial training course. This is the most often used form of evaluation and sometimes open to abuse. The reason is that the questionnaires do not always address all the relevant issues, especially contentious ones - and the wording employed may be deliberately designed to portray only a positive picture.

Evaluation of a managerial training course against the Learning criterion is considered more difficult than against the Reaction criterion. For the purpose of managerial training, Hamblin (1972) and Kirkpatrick (1984) define learning as the significant acquisition of the skills and knowledge as defined by the objectives of the course. The degree of learning is measured by testing for a significant difference between a trainee's scores on a test at the start of the managerial training course (pre-test) and the trainee's scores on a similar (parallel) test at the end of the course (post-test). Other evaluations are done by means of intermediate tests at critical stages during the presentation of the course. Such evaluations could be in the form of pencil-and-paper tests, verbal tests, simulation

exercises, case studies, role-playing, etc. Measurement against the Learning criterion is important if a trainer wishes to prove the effectiveness of a managerial training course and its value to the organization.

Martin (1957) proposes that the Reaction and Learning criteria measure the degree of internal validity of a managerial training course and Rae (1985) regards such assessment as a measure of the extent to which managerial training attained its specific objectives. Usually the trainee is successful in meeting these criteria because the presentation of the managerial training course and the immediate training environment are under the trainer's direct control.

The Behaviour criterion pertains to a desired change in behaviour of a trainee, judged against the mission and aims of the organization, as a direct result of the managerial training course. Such evaluation is regarded as more difficult than evaluation against the two preceding criteria. Martin (1957) sees the Behaviour criterion as the first measure of the external validity of a managerial training course. Rae (1985) defines the external validity of such a course as the extent to which the behavioural objectives of an internally valid course are realistically based on the accurate identification of training needs in relation to the criteria of effectiveness adopted by the organization. It is here that the "proof of the pudding exists in the eating thereof". Ammons and Niedzielski-Eichner (1985) warn that it is at the Behaviour criterion level of evaluation that the dividends resulting from a managerial training course become apparent. Meyer and Raich (1983) in a survey of over 100 organizations, found that less than 20% of them evaluated their managerial training against the Behaviour criterion.

Buzzotta (1986) proposes that the aim of a managerial training course should change the trainees behaviour along the following dimensions.

- a) Increasing the occurrence of acceptable behaviour;

- b) decreasing the use of unacceptable behaviour;
- c) adding new forms of acceptable behaviour to the trainees repertoire.

Kirkpatrick (1959) and Nel (1984) postulate that if trainees are going to change their behaviour as a direct result of a managerial training course certain conditions must be met. First, trainees must want to change or improve their present repertoire of behaviour. The onus hence lies with the trainee, manager and trainer to look at influencing variables such as attitude, resistance to change, motivation, organizational climate and culture. Secondly, trainees must acquire the skills and knowledge necessary to meet the objectives of the managerial training course. Then trainees must function in an appropriate job climate in order to be able to practise these newly acquired skills and knowledge. Penultimately, trainees should get help from important others in attaining this practice, and finally, they should be rewarded for successfully applying newly learned skills and knowledge in the work environment.

The most difficult criterion against which to evaluate a managerial training course is the Results criterion. Objective evaluation at this level would reveal how the skills and knowledge gained from the managerial training course effect the profit and loss of the organization. Very little evaluation has been done at this level. According to the survey undertaken by Meyer and Raich (1983) less than 15% of the organizations evaluated their managerial training courses against this criterion, and all such evaluations consisted of subjective observations. Dean and Schwartz (1986) and Nel (1984) regard objective evaluation at this level to be of strategic importance to the organization. This is partly because behaviour changes resulting from managerial training might have a negative effect on the organization's cost effectiveness if the new behaviour does not match the prevalent organizational culture and climate, or clashes with goals.

Bell and Kerr (1987), Bertish (1985), Del Gaizo (1984) and Nel (1985) remark that evaluating a managerial training course against the Results criterion is difficult because the subtle behavioural elements and attitudes learned cannot be directly linked to the gains or losses of the organization. Such gains would include less staff turnover, less wastage, less sick leave, fewer accidents, etc., which might be due to variables other than those pertaining to the managerial training course. Converting the results of a managerial training course to tangible monetary values for the organization is difficult but Dunn and Thomas (1985) propose that it can sometimes be done. They say behaviour could be labelled negative or positive and a monetary value attached to it in terms of the organization's goals. They imply that this is the duty not only of the trainer but also of the trainee and the trainee's manager. Unfortunately, Dunn and Thomas do not advise how such evaluations are to be undertaken and appear to be unaware of the costs involved. Yet, an awareness by the trainee and the manager of a monetary value attached to any behaviour change as a result of a managerial training course could possibly effect the transfer of training if the financial consequences of such were positive for those involved - this appears to match Kirkpatrick's (1959) sentiments on one of the conditions necessary to initiate change in behaviour as a result of a managerial training course.

Hamblin (1972) arranged the four criteria for evaluating managerial training into a hierarchy. Firstly, a criterion at any particular level can be met only if the criterion preceding it has been satisfied. Secondly, as one moves up the hierarchy it becomes more difficult to attain success against each criterion. The hierarchy is depicted as follows :

LEVEL	CRITERION	DEGREE OF DIFFICULTY
1	Reaction	Easy
2	Learning	Less easy
3	Behaviour	Difficult
4	Results	Very difficult

Of great importance is that the effective transfer of managerial training to the work environment can be coupled to productivity. Nel (1985) claims that South African productivity levels are substantially lower than those of our major trading partners and that these levels are still declining. Amongst the many causes are the ineffectual transfer of managerial training, its inadequate evaluation, the lack of involvement of line management in these two processes, and poor or non-existent on-the-job follow up of the application of newly learned knowledge and skills in the work environment. Manning (1987) elaborates on this last idea by mooted a new process of managerial training wherein trainers will have to add to their repertoire of skills. Such skills would include facilitating, counselling, mentoring and role-modelling.

These ideas and the foregoing discussion illustrate that the problem of transferring managerial training to the work environment is multi-faceted and warrants further research. Various research questions come to mind :

- * Why is the transfer of managerial training to the work environment ineffective ?
- * Which variables are relevant to this transfer ?
- * Why are these variables relevant ?
- * What can be done to improve the transfer of managerial training in terms of these variables ?
- * Who should be involved in the transfer process ?
- * What are the roles of the different participants in the transfer process ?

The wealth of available literature served to highlight the importance of these questions and their possible answers, which

therefore determined the objectives of the present research. The primary objective was to find a realistic, practical method of enhancing the effective transfer of managerial training to the work environment. Secondary goals included :

- a) evaluating managerial training against at least the Behaviour criterion as defined by Kirkpatrick (1959) and Hamblin (1972);
- b) investigating the effects of organizational climate during the transfer process;
- c) measuring and attempting to improve the attitudes of the trainees and important others during the transfer process and
- d) investigating the significance of any other salient variables relevant to the transfer of managerial training.

Chapter 2 contains the theoretical background to the research problem. A review of recent research literature is presented in chapter 3. Chapter 4 contains a description of the types of managerial training courses offered by Transnet, the company where this research was carried out. Chapter 5 presents the research design, sampling techniques and the measuring instruments used, with the results of the research revealed in chapter 6. Finally, the interpretation and resultant recommendations are offered in chapter 7.

CHAPTER TWO

THE THEORETICAL BACKGROUND

INTRODUCTION

The effective transfer of managerial training into the work environment is dependent upon several interdependent and interacting variables. In this chapter, theories and literature pertaining to these variables will be critically evaluated, adapted and expanded so that testable hypotheses may be derived.

Bogorya (1988), McCormick and Ilgen (1980) and Ware (1964) describe the importance of individual and situational variables that affect human behaviour. Individual variables include factors such as aptitudes, attitudes, personality and physical characteristics, interests, educational qualifications, experience, etc. Situational variables fall into two classes : job and physical conditions, which include methods of work, the design and condition of equipment, available space and its use, etc; and organizational and social variables, which include the character of the organization or department, type of training and supervision received, types of incentives and the social environment. (Refer to Figure 2.1). The variables salient to this research are now introduced, though not necessarily in order of importance.

MENTORING

The concept of mentoring is attributed to the Greek poet Homer - King Odysseus appointed a sage to guide his son Telemachus on the day-to-day running of court affairs whilst away in battle during the Trojan wars. Legend reports that the sage, Mentor, did the job so well that Telemachus dethroned Odysseus.

Throughout history, experienced persons have counselled, coached, taught and sponsored protégés. There have been mentors and protégés in philosophy, the arts and letters, the military and

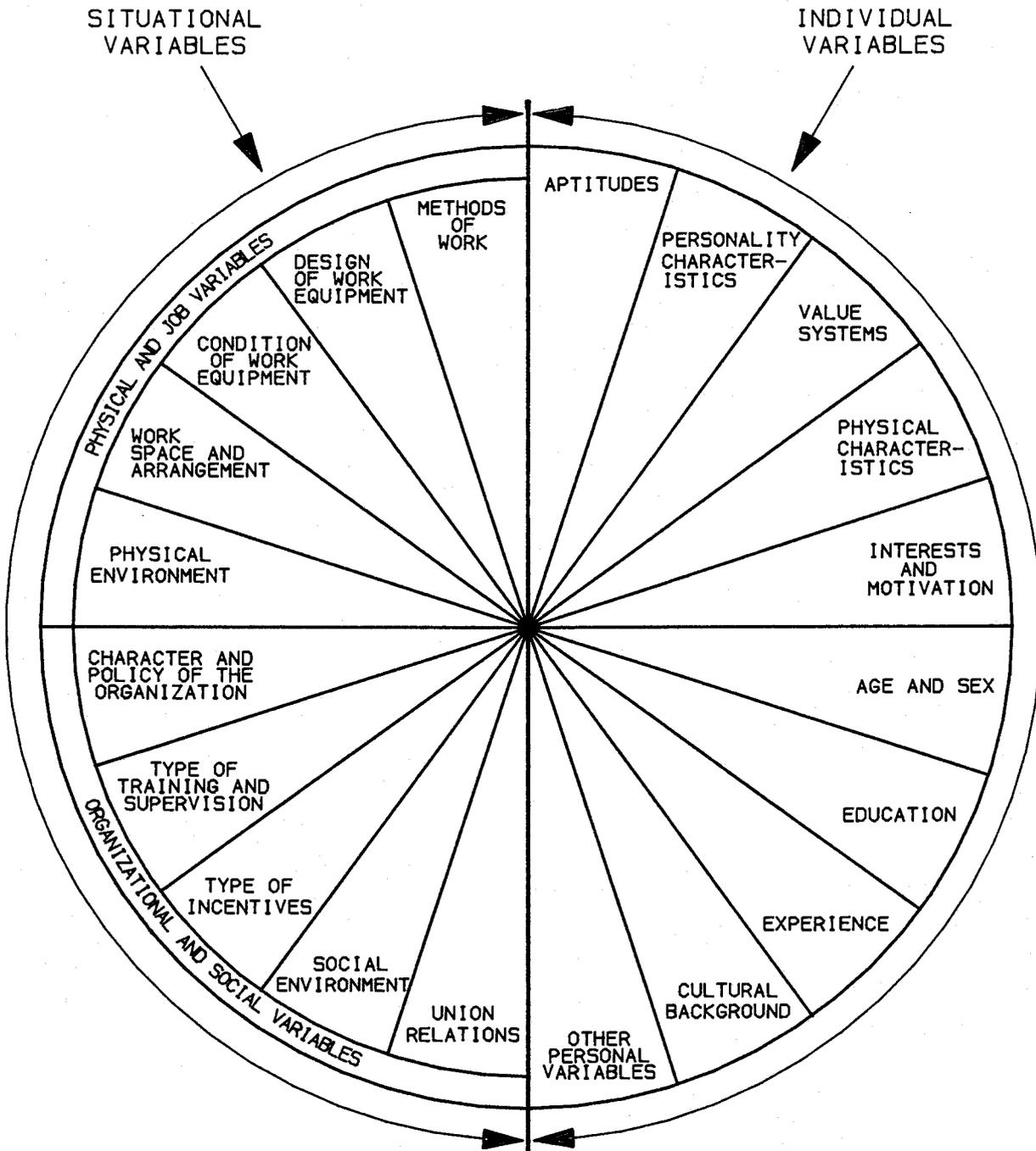


Figure 2.1 Individual and situational variables affecting human behaviour, according to McCormick and Ilgen (1980).

even in professional sports. In the business world, however, the importance of mentors has until just recently been largely unrecognized.

A mentor is defined as an experienced and trusted advisor. Moerdyk and Louw (1989) regard mentoring as a complex process involving a one-to-one relationship, usually between a more senior, knowledgeable person (mentor) and a junior, less skilled person (protégé). Nasser (1987) and Roche (1979) view mentoring as a process by which the skills, knowledge and life experience of a successful manager are transmitted to another employee for the purpose of enabling that employee to achieve greater effectiveness. Dinsdale (1987) sees a mentor as someone who enjoys developing people and who has the stature, experience, insight and maturity to be a credible source of inspiration and influence for the development of the protégé as a complete person.

Phillips (1977) categorized mentors along three dimensions. The first is voluntary vs involuntary, according to their willingness to provide help. The second is career vs non-career, according to that portion of the protégés life that they influence. The third is primary vs secondary, according to how the mentor's role is perceived by the protégés, are influential at critical periods in their lives and profoundly assist the protégé in attaining life goals. A protégé could have one to three primary mentors in a lifetime. Secondary or partial mentors are more common, appearing at various life stages to fulfil the needs of their protégé. A single protégé may have several secondary mentors at any given time, as well as several over the spread of a lifetime. It is possible that a secondary mentor could develop into a primary mentor, although the reverse seems unlikely.

According to Hofmeyer (1987), Kram (1985) and Palmer (1988) mentors fulfil a number of distinct functions which can be placed into three categories. The first is career development. This involves sponsoring, guiding, advising and providing exposure for the protégé. The second function is psychological in that the

mentor provides counselling and support, and builds self-esteem and confidence. Finally the mentor acts as a role model - exemplifying a model of effectiveness which the protégé comes to admire and emulate. As a result the mentor and protégé develop an affinity for each other. This relationship is a mutual one, as both parties benefit from it. Nasser's (1987) remark that as the protégé develops, so too does the mentor, indicates the importance of the degree of mutuality of the mentor-protégé relationship for the organization. This relationship is also comprehensive to the extent that the mentor influences the social, educational, political and professional life areas of the protégé.

Using the two dimensions of mutuality and comprehensiveness, Hofmeyer (1987) presented a grid to compare mentoring to coaching (refer to Figure 2.2). The relationship between these two concepts is salient to the transfer of managerial training because of the various roles adopted by mentors and coaches, and the importance of these persons to the protégé (trainee).

Coaching is defined as teaching, explaining, appraising and giving feedback through daily contact in order to make the trainee more competent on the job. Comparing this with mentoring, Hofmeyer says coaching focuses more on the trainee and differs from mentoring in that it is a narrower relationship influencing only the job-related life areas of the coach and the trainee. The mentor-protégé relationship on the other hand, requires greater intimacy, sharing of values and feelings, disclosure of personal data, boasts and confessions.

Mentoring is not a one-way street (Hardaker & Ward, 1987; Nasser, 1987; Phillips-Jones, 1983; Thlopane, 1990; Zey, 1988). The protégé also helps to advance the mentor's career by offering vital information about the lower echelons of the organization, what is really happening at the coalface and about problems in the transfer of training. Mentoring reduces turnover of critical personnel and enhances communication between all

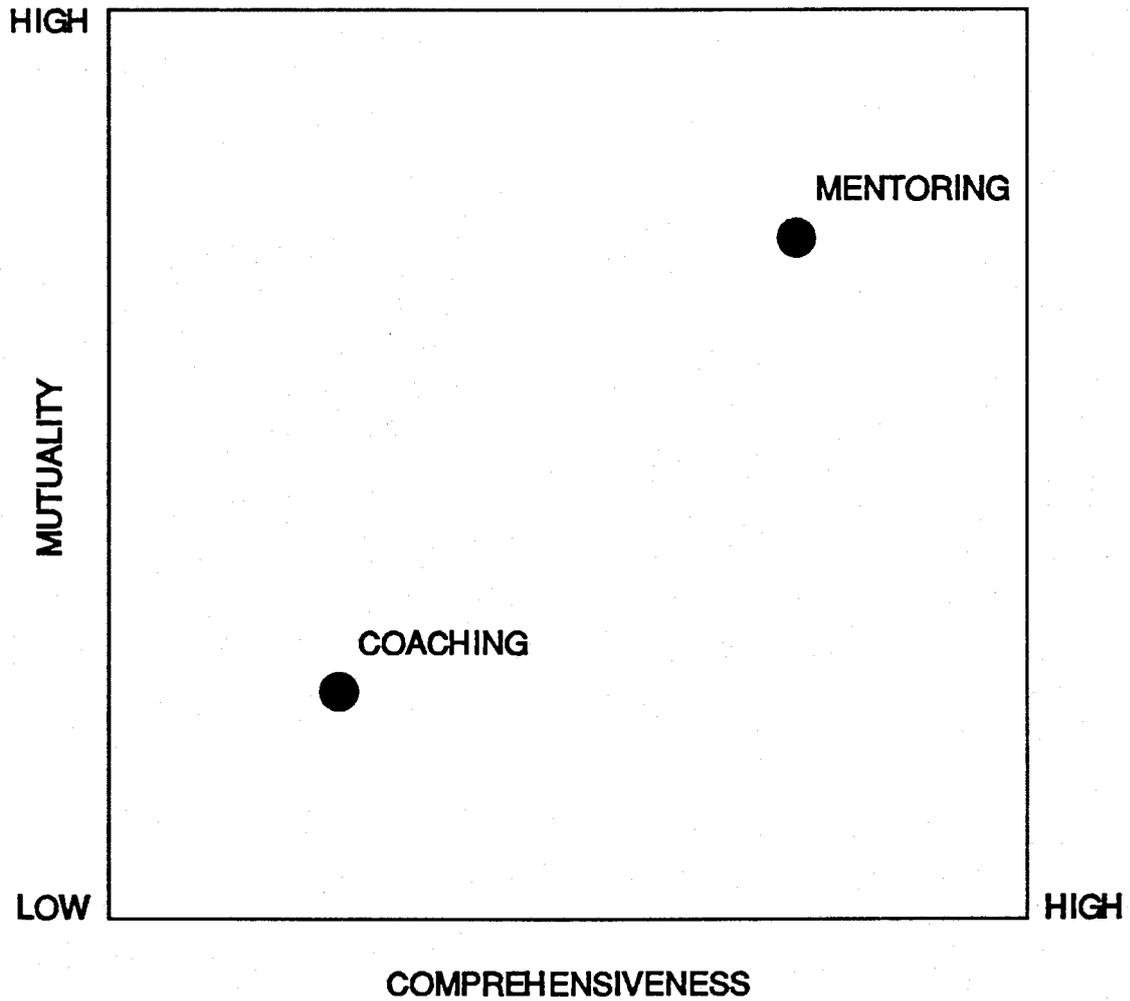


Figure 2.2. A grid depicting the relationship of mentoring and coaching, according to Hofmeyer (1987).

sectors of the organization. A mentor integrates the protégé into the organization, inculcates a sense of belonging and togetherness, and arouses the sense that the organization really cares about one's wellbeing both inside and outside the organization.

Coaching and mentoring could be regarded as insufficient for the transfer of managerial training. Coaching implies the application of training to routine, run of the mill tasks, devoid of risks for the coach and the trainee. Mentoring embraces coaching but includes high risk applications of training into unusual managerial situations. The risk is permitted as long as the cost to the organization is low and the protégé and mentor learn from the experience. Other functions should, however, also be considered in the transfer of managerial training.

One of these is sponsoring, which is defined as giving security and answering for someone else. Hofmeyer (1987) proposes that this does not quite imply the intimacy of mutual interest in the wide range of career and personal developmental areas appropriate to mentoring, yet is still more mutual and more comprehensive than coaching. He places sponsoring midway between coaching and mentoring on the two axes of the grid (Figure 2.3). This appears acceptable, but it is necessary to emphasize further distinctive concepts which intuitively are considered important to be transfer of managerial training and are related to mentoring.

Facilitating. This is defined as making easy and promoting. Facilitating could be viewed as more comprehensive than sponsoring, because the facilitator has to know and prepare the environment so that there is a meeting of the trainee's social and career needs (Keenan-Smith, 1986).

The environment and the trainee have to be tailored so that both are supportative of each other. The degree of mutuality is deemed to be lower than that of sponsoring because of the risk involved by the facilitator in setting up the environment for the

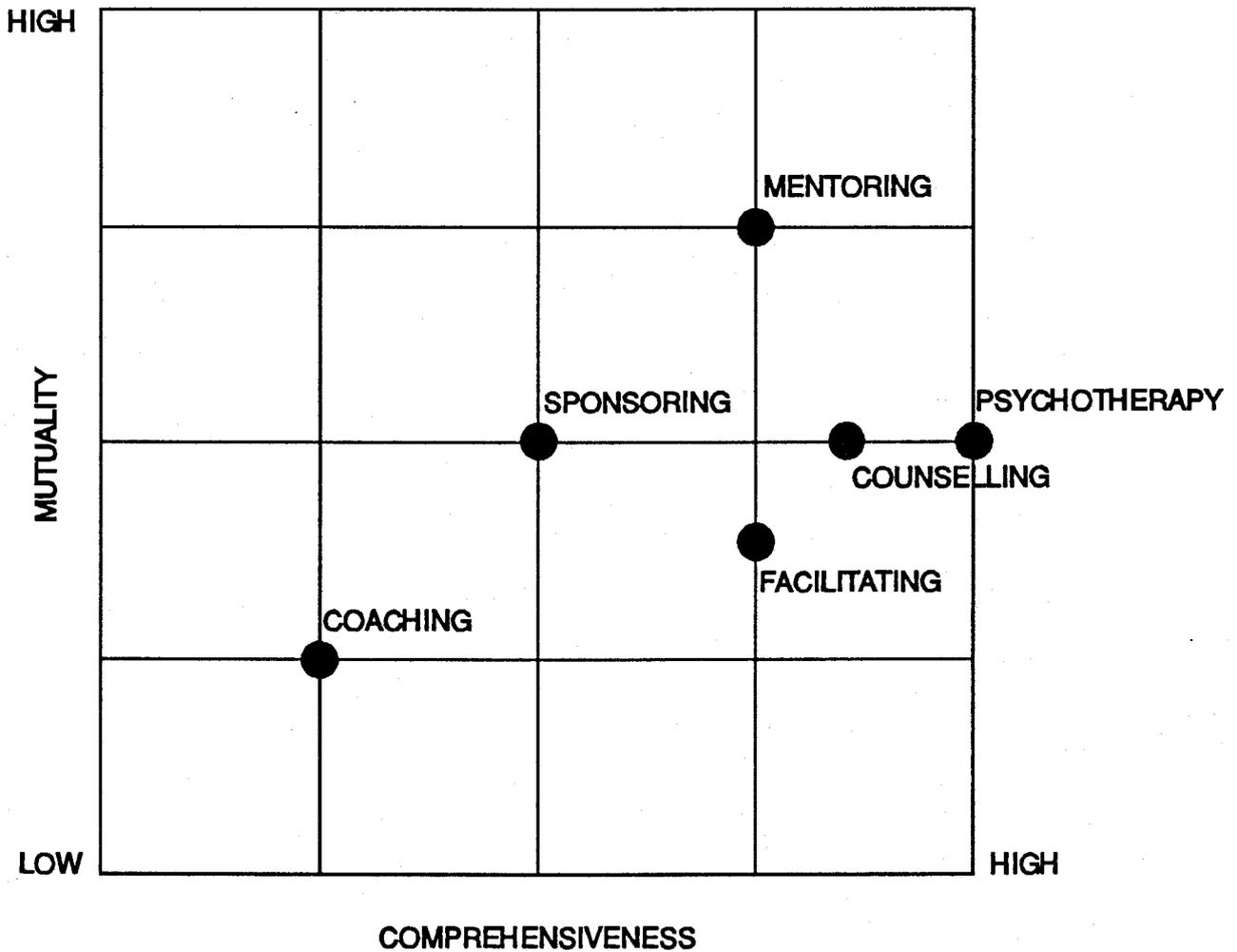


Figure 2.3. Grid showing the relationship of mentoring and coaching to sponsoring, facilitating, counselling and psychotherapy.

benefit of the trainee. Facilitating is higher on mutuality than coaching because the facilitator does more than what is expected in the routine application of training to the job - this implies that the facilitator also gains from such situations, with exposure and improved stature (Figure 2.3).

Counselling. This means formal interviewing, guiding and advising people in the solving of problems and planning for the future. Counselling is relevant to the transfer of managerial training because some trainees have social and career difficulties in applying what was learned in the training course to the job. According to Brammer and Shostrom (1977) counselling is situational and involves rational planning and decision making in the solving of problems under the guidance of a highly trained, experienced counsellor. Such would apply to trainees without personality disturbances and other deep seated problems which could affect transfer of managerial training. Counselling is more comprehensive than mentoring because it involves problem solving within most of the life areas of the trainee to effect transfer without problems. The degree of mutuality could be the same as sponsoring (Figure 2.3).

Psychotherapy. This is the treatment of mental, emotional and behavioural disorders by specialised techniques pertaining to the individual and the situation. Psychotherapy is relevant to the transfer of managerial transfer for several reasons. Salient is that the population of trainees includes those who have personality disorders which come to the fore during stress situations on the job and in the training environment. Managers hope that training will solve the problem of the trainees incongruent behaviour on the job; hope there will be guidance on how to handle the trainee; seek excuses for negative behaviour on the part of the trainee; hope training will reveal the cause of a negative manager-trainee relationship; and want to help the trainee. Brammer and Shostrom (1977) propose that psychotherapy could help the trainee (and manager) regain perceptual organization, integrate insight into everyday behaviour, and help to

control intense feelings originating in past hurtful experiences. Psychotherapy would be placed higher than counselling on the comprehensiveness axis of Hofmeyer's grid and equal to sponsoring and counselling on the mutuality axis (Figure 2.3).

The aforementioned concepts are important to enhancing the transfer of managerial training. After a training course, the trainee is expected to apply newly learned skills and knowledge in the job, usually without help, notwithstanding the individual and situational problems peculiar to that particular environment.

THE INTERPERSONAL RELATIONSHIPS WITHIN THE TRIAD.

The triad consists of the trainee, the trainee's manager and the trainer. Each has a role to play and their correct interaction and interpersonal relationships are important to the goal of transferring managerial training.

Riggs (1978) suggests a concept, system C, to explain the interaction between two or more persons (Refer to Figure 2.4). The circles representing persons A and B, contain all the intrapsychic and somatic functions constituting an individual interacting with the environment. Between A and B is a complex communication field, system C, which has two interfaces IF, one between A and C, another between B and C. System C is an entity in itself with characteristics which could be important to the transfer of managerial training.

The first characteristic is that C is non-autonomous, emerging from the product of the inputs of A and B, ie,

$$C = f (A,B)$$

System C includes organization within the relationship, shared and recognised by A and B, which is intended to improve communication. Possibly there is a unique system C peculiar to each particular A and B relationship.

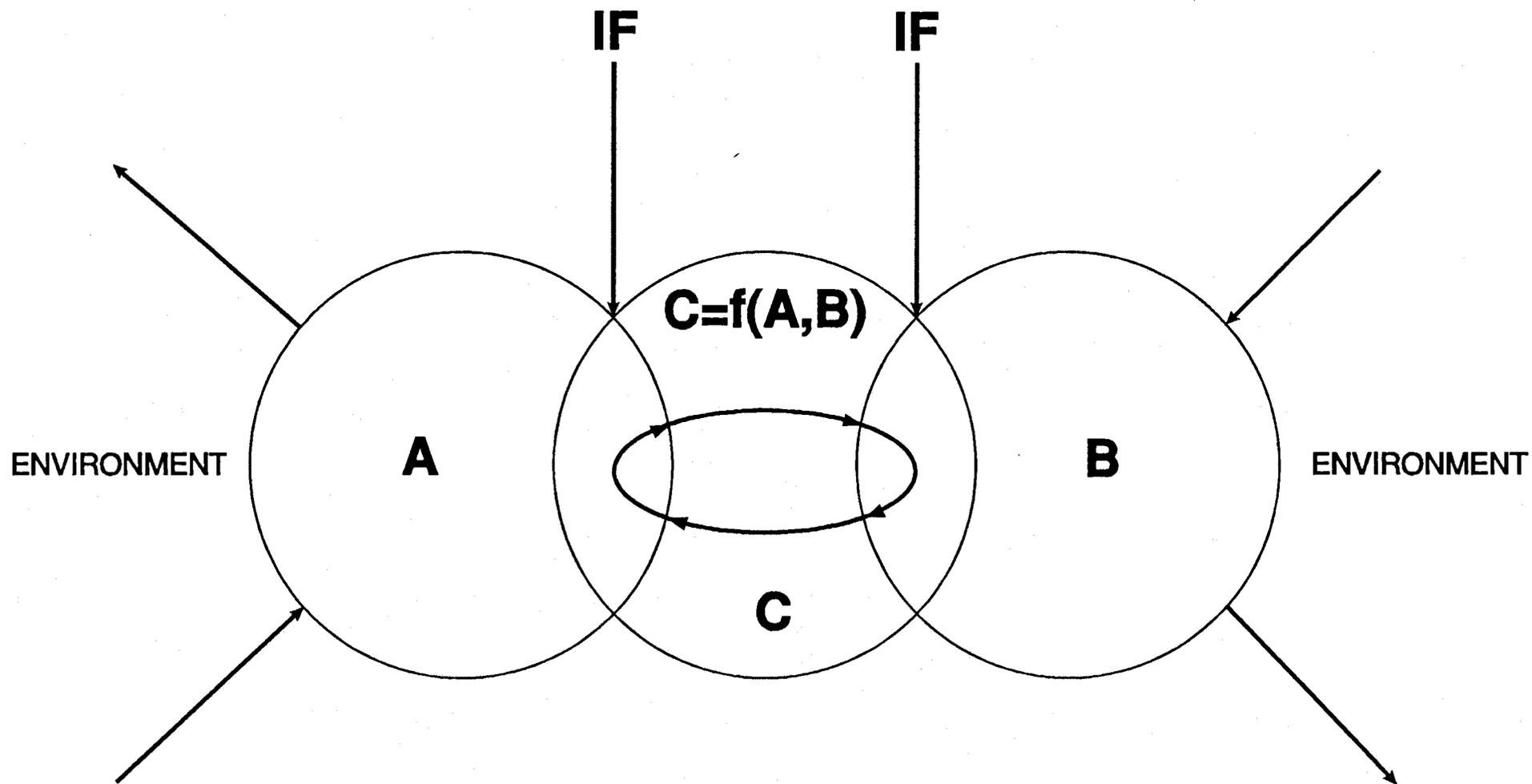


Figure 2.4. The interaction between persons A and B, the environment and system C, according to Riggs (1978).

Many authors have indicated how these ideas could be applied in order to possibly enhance transfer of training. Buzzotta (1986), Hardaker and Ward (1987), House and Tosi (1963), Jackson (1985), Nel (1985), Rossiter (1988), Simoncelli (1987) and Zemke and Gunkler (1985) promote the idea of giving the trainee immediate feedback on growth when there is improved performance as a result of training. This allows positive reinforcement for all in the triad, each gaining credibility, respect and personal satisfaction. Instead of being haphazard, the training process becomes systematic because it is goal oriented. Correct monitoring and feedback by manager and trainer affects trainee motivation to implement and maintain skills learned during training. Job related feedback gives meaning and structure to the application of these skills.

A second characteristic of system C advocated by Riggs is the principle of hierarchical differentiation. If there is no leadership and no specialization of function of those involved within system C, then disorganization, and even destruction of the system results. Anything happening within, or to an element of system C affects the whole of system C.

These concepts can be related to the roles and relationships within the triad. Mitchell (1988) proposes that three factors are necessary for successful team participation within the triad. Firstly the team requires a facilitator which could be one of the roles of the trainer. This could include a leadership role, even though the trainer need not be the highest ranked but has the necessary degree of experience and education. Leadership would originate from personality and not position. Secondly line management (the manager) should be included in the team so that consensus can be reached in the attaining of training goals. Finally, trainee and manager require training and help in the formulation of training goals, the definition of their roles and the development of trust and interpersonal skills.

A third characteristic of system C is that if the system is to continue, all parties involved must make an investment (commitment) in creating and maintaining the communication relationship. Persons involved should not only care about each other but also about their relationship. This can be related to the problem of training and its transference to the job. Boydell (1970), Bramley (1986), Carlisle (1984), Fotheringham (1986), Kruger and May (1985) and Robinson (1984) are of the opinion that during and after a managerial training course the trainee and manager adopt a passive role. Trainees are required only to turn up for training where a variety of interesting things are presented, irrespective of any direct relevance to their specific jobs. An attempt to rectify this displacement of accountability would be to hold accountable also the trainee and manager. The trainee should acquire a sense of commitment to change to justify the investment of time, energy and money in the training course. According to Bird (1969), Bramley (1986), Hardaker and Ward (1987), Kruger and May (1985), Sherwood (1987) and Spitzer (1985) transfer of managerial training is also a line management responsibility. This should be coordinated and facilitated by non-line personnel, the trainer. Both should develop procedures for effective reinforcement - reinforcing skills back on the job where they matter most. Bogorya (1988), Feuerstein (1988), Gresse (1988), Nel (1985) and van den Bergh (1988) suggest that the trainee and manager should determine how the desired end results of a training course are going to be achieved. Results should be observable and quantifiable with emphasis on practical application.

The final characteristic of system C applicable to the transfer of training is that the system is in constant interchange with the environment. Neglect of this interchange results in a gradual cutoff from external influences with an increasing loss in ability to adapt to future changes. Conversely, an overload of external influence creates stress, strain and finally, disorganization. Any positive, mutual return for the persons

within system C will arouse a combined resistance against disruption and ensure survival of system C. Homeostasis will be maintained if there is a self-regulation tendency emanating not only from the participants, but also from system C to act upon the participants.

According to Anderson and Wexley (1983), Dinsdale (1987), Manning (1987), Mindak and Anderson (1971) and Rutherford (1990) the trainer should have sound interpersonal skills, acute insight and a flexible managerial style. This will enable adaptations to the specific circumstances of trainee, manager and their environment. The trainee should enjoy an open, trusting relationship in an environment where one is free to express aspirations, help to set training goals, review learning points and benefit from feedback. Without this, the transfer of training would be seriously hampered.

Robinson (1984) postulates the trainer has a degree of control of the training environment which usually quickly diminishes once the trainee returns to the work environment. This control could be extended if the trainer, as facilitator, assists with the accurate analysis of transfer problems emanating from the environment. This would include assisting the trainee and manager with goal setting and tactics necessary to enhance the transfer of skills that would persist over time.

Bertish (1985), Bird (1969), Birkenbach (1985), Coetzee (1988), Mindak and Anderson (1971) and Mitchell (1988) feel that an autocratic managerial style can no longer meet the changing needs of industry. The managerial process is increasingly being challenged by workers supported by effective, aggressive trade unions. They suggest the alternative is participation in decision making and goal setting by all who would be affected by such. This is applicable to the training process. Trainees functioning as part of a team perform better than when working in an autocratic climate. Decisions made by all members of a team are likely to be more successful as the contributions by

each allows psychological ownership.

ATTITUDES TOWARD MANAGERIAL TRAINING

The attitudes of those forming the triad, and significant others in the work environment, are important to the transfer of managerial training. According to Burgoyne (1973), Lancaster (1983) and Freedman, Sears and Carlsmith (1980) attitudes affect one's tactics during daily encounters whilst attempting to achieve a desirable state of affairs within the organization. Shared attitudes are necessary for cooperation, mutual acceptance and dependability.

An attitude is a relatively fixed, internal affective orientation towards a person, object or situation. It is learned, relatively stable and can be used to explain one's actions. The components of an attitude are as follows :

- (a) cognitive, in that there is a conscious belief. A belief is defined as an emotional acceptance of some proposition, statement or doctrine without the support of logical or empirical evidence;
- (b) affective, that is, an emotional tone or feeling;
- (c) evaluative, by being positive or negative towards the objects of the attitude;
- (d) conative, as there is a disposition for action (the behavioural component of the attitude).

McCormick and Ilgen (1980) and Spector (1958) define attitudes as conscious states which represent the degree of affect felt by an individual towards a particular psychological object. Landy and Trumbo (1980, p414), on the other hand, claim that one may have a feeling about a psychological object and, independent of this feeling, a belief and an action tendency. However, when applying these concepts to the transfer of managerial training it is proposed that the components of an attitude are hierarchically intergrated as depicted in Figure 2.5. The components are

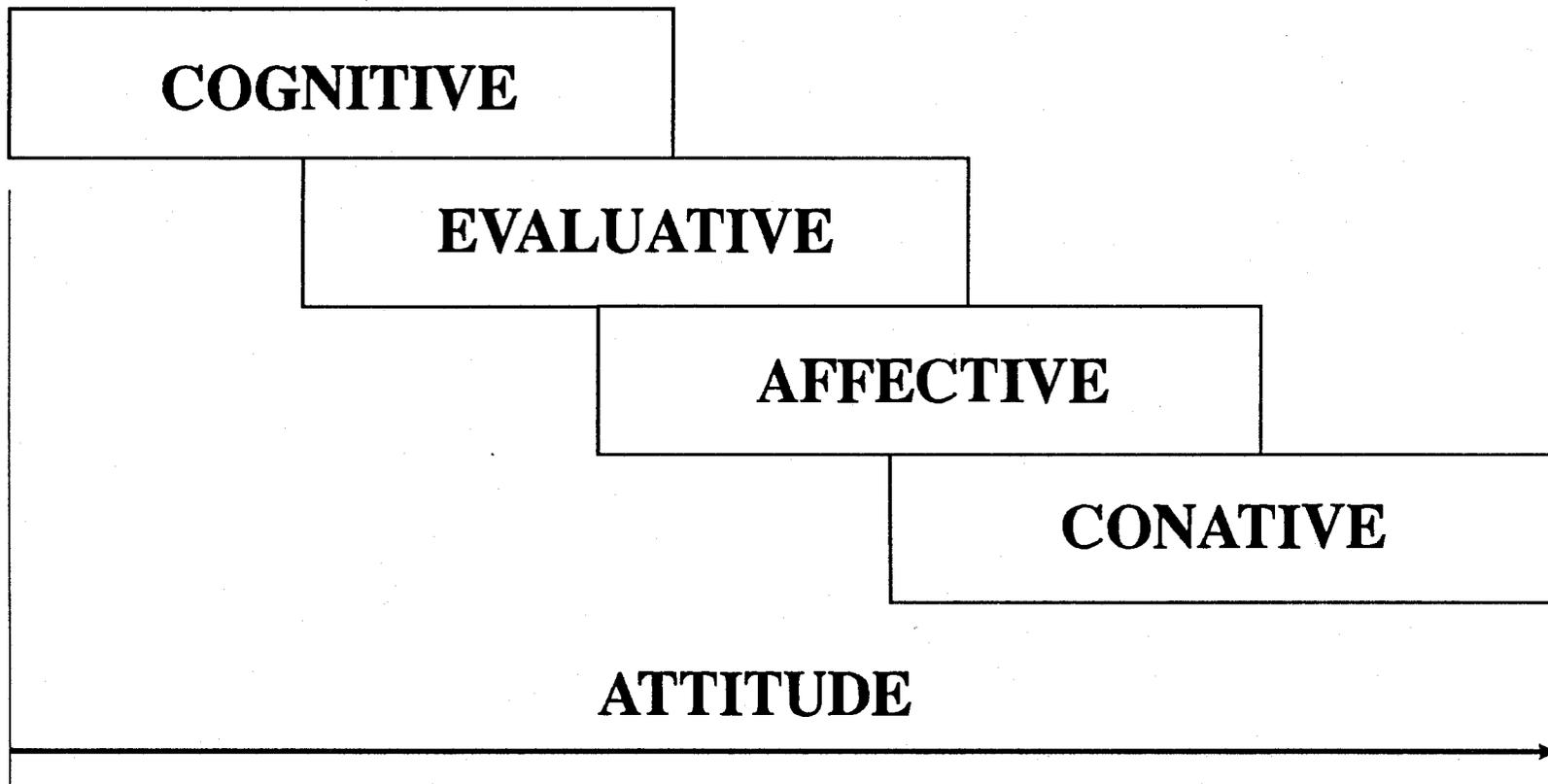


Figure 2.5. The hierarchical integration of the components of an attitude.

not independent because each subsists on the others. The origin of an attitude seems to be a belief, which eventually leads to an action tendency. However, there appears to be a degree of overlap between the components of the hierarchy.

Freedman, et al (1980) emphasize that there is some unknown form of interrelation between the components, and regard the evaluative component as the major determinant of behaviour arising out of an attitude. However, this appears to be a generalized view of attitudes and it may well be that the importance of each component varies according to the particular circumstances. For example, it could be that the affective component is especially important to the process of transferring managerial training. This is because feelings form the transition between the cognitive and the conative processes which transform thoughts into actions. From this it appears that attitudes applicable to the transfer of managerial training could be made positive by employing two methods. The first is by changing the behaviour of the trainee and manager, that is, by requiring them to practice newly learned behaviour in simulated situations during the managerial training course (role playing), and on the job. The evaluative and affective components of their attitudes might well be improved by positive reinforcement when trainee and manager realise the effectiveness and pleasure of behaviour that is congruent with the environment. The second method is to change the belief systems of the trainee and manager to be more congruent with the demands of the environment. As the affective and evaluative components subsist on and overlap with the belief component, belief change should lead to a more positive evaluation of the situation and promote a desirable change in behaviour.

RESISTANCE TO CHANGE (RTC)

This variable is important to the transfer of managerial training because it is regarded as an attitude (Andrews, 1988; Epstein & Cook, 1987; Jackson, 1985; Moerdyk & Fone, 1987; Spitzer,

1985). This particular attitude is determined by the outcome of the change as perceived by the trainee, manager and important others. Outcomes perceived as beneficial are readily accepted, whereas those perceived as detrimental to one's self-interest are not. Moerdyk and Fone (1987) propose that other reasons for resistance to change (RTC) include the personality characteristics of those involved in the change process, group dynamics, psychological reactance and the "not-invented-here" syndrome.

The self interest theories

Self interest theories embrace the concepts of inertia-homeostasis, insecurity and power.

Inertia-homeostasis. Jackson (1985), and Moerdyk and Fone (1987) relate these concepts to the idea that people are located within complex systems in which various elements and subsystems have over time settled into a stage of equilibrium. One's values, beliefs and aspirations are components of these larger systems. When a change occurs within part of a system, homeostatic forces arise to counter the change in order to restore equilibrium and maintain the status quo.

Attempting to implement changes in the work environment by means of a training course may therefore be resisted if such changes interfere with normal patterns of work. Old habits and routines have to be unlearned and replaced by newly learned ones. This requires effort by those involved, which could be an uncomfortable, inconvenient process. If the perceived effort in changing is greater than the perceived benefits derived from changing, there will be RTC (Fick, 1987; Landy & Trumbo, 1980; Moerdyk & Fone, 1987; Spitzer, 1985; Thlopane, 1979, 1990).

Insecurity. RTC can be caused by insecurity arising from uncertainty about the outcome of the change process - this would include fear of loss of status, lowered self esteem, loss of valued colleagues and possible failure in new circumstances. Before and after change has been introduced, trainees speculate

about their new, modified roles and how their managers and colleagues will respond. This speculation process results in fears and uncertainties which did not exist prior to change (Bogorya, 1988; Epstein & Cook, 1987; Jackson, 1985; Moerdyk & Fone, 1987). Involving the manager in assisting the trainee will improve the change process so that adaptation to the new environment becomes part of normal, everyday work procedure (Balzar, 1988; Jackson, 1985; Snyder, Morin & Morgan, 1988).

Power. RTC may occur in part because the trainee fresh out of a training course poses a threat to the control and power base of the manager. The trainer as facilitator should therefore ensure that norms are not transgressed and that when tailoring the contents of the training course to the trainee's particular work environment there is no detracting from the authority or erosion of the power base of the manager. Furthermore, a positive effect could be achieved by using the expertise and experience of the manager to enhance the process of change (Edosomwan, 1987; Epstein & Cook, 1987; Jackson, 1985; Mitchell, 1988; Moerdyk & Fone, 1987; Parry & Reich, 1984; Robinson, 1984).

Personality characteristics

Everyone does not resist change to the same extent and according to Moerdyk and Fone (1987) personality characteristics could account for these differences. Such characteristics would include intolerance of ambiguity and prejudice.

Intolerance of ambiguity is regarded as the tendency to interpret ambiguous situations as sources of threat. Individuals with strong tendencies to avoid uncertainty, maintain rigid codes of belief and tend to be intolerant of persons who deviate from normal practice because of the discomfort that arises (Moerdyk & Fone, 1987). In order to neutralize the effect of intolerance of ambiguity, the trainer as mediator should fully involve the trainee and manager during the transfer process, so as to impart a sense of participation and ownership to reduce RTC.

Prejudice. Moerdyk and Fone (1987) regard prejudging as the tendency to categorise individuals without them having the opportunity to prove otherwise. It is caused by ignorance of the values and beliefs of others and the tendency to overgeneralize from a particular situation without considering all the relevant facts. Prejudice could be manifested by stereotypical behaviour and is a barrier to the implementation of change. Prejudice could be limited by introducing a process of education and increasing the amount of positive interaction by all involved. Once their assumptions are shown to be unfounded, those involved might be prepared to reconsider their beliefs.

Group dynamics

People are located within complex systems based in part on social relationships built up over time. This can slow down the process of change due to social costs and the effort required. Groups establish norms of behaviour that are communicated to members in order to establish limits to expected behaviour. Failure to comply with these norms can result in loss of respect and status for a group member. A group is attractive only to the extent that it satisfies the individual needs of its members, and any changes to the group's norms will be met with resistance. The more cohesive the group, the greater its RTC (Andrews, 1988; Binneman, 1988; Jackson, 1985; Moerdyk & Fone, 1987). Consequently, the facilitator of change needs to convince the group of the need for change, and their safety in accepting it, so that appropriate new group norms can be developed.

Psychological reactance

Some people attach much importance to democratic procedures and will react negatively if free choice is denied them. If such persons are coerced to act in a particular manner their reaction will be such as to restore lost freedom of choice. Of concern here is that such persons could overtly express agreement but in private strongly disagree, either consciously or unconsciously, and could even attempt to sabotage the change process (Moerdyk & Fone, 1987). To effect a positive attitude change it is

therefore imperative that the trainer presents a balanced, fair portrayal of all the issues involved. Revealing both the strengths and weaknesses of the changed situation, rather than emphasising only the favourable points, should result in more acceptable and permanent changes.

The "not-invented-here" syndrome

People regard their local circumstances as special and any imported ideas for improvement or solutions to problems could be regarded as inappropriate. There is an unwillingness to accept outside ideas in preference to one's own, because of a fear of being judged incompetent. Also, highly educated or experienced persons may tend to dismiss as inferior the good ideas of those with less education or experience. Any new ideas will be resisted if they disagree with deep seated values and beliefs (Moerdyk & Fone, 1987). To nullify the "not-invented-here" syndrome it is essential that the recipients of the change process are involved in its design and implementation so as to impart a sense of participation and ownership.

The awareness of change

For the effective transfer of managerial training it is important that members of the triad understand the implications of change which initiates a cycle of reactions that can be described in seven stages. The first stage is immobilization : those involved in the change process initially feel overwhelmed by it and are unable to understand the situation, especially if change is rapid, unexpected and unpleasant. The second stage is that of minimization, during which the change process is denied and regarded as trivial. The third stage is depression, caused by the individual facing up to the reality of the change, and perception of its possible consequences. This stage is eventually followed by acceptance of the reality of change, an important stage because it involves letting go of the past. Acceptance overlaps with the testing stage, when new thoughts and behaviours aimed at coping are attempted. Penultimate is the search for meaning, which entails a gradual conceptual process that leads

to understanding and insight, so that finally, changes are incorporated into the person's repertoire of behaviour (Moerdyk & Fone, 1988).

Implementing what was learned in the managerial training course to the job is going to cause change. It therefore seems important that the trainer, as facilitator, should be aware of the reactions of the trainee and manager as they pass through the process of change. Furthermore, the correct application of counselling, or even psychotherapy, could enhance the transfer of training if the trainer knows at which stage the trainee and manager are in the change cycle.

MOTIVATION OF THE TRIAD AND SIGNIFICANT OTHERS.

Motivation, important to the effective transfer of managerial training, has given rise to many theories. Kastner (1988) integrated some of these theories into a model which possibly is suitable for explaining the role of motivation in the transfer of training. Before presenting this model, the embodied theories will be briefly discussed.

Need Theory

A classification of basic human needs is generally regarded as important to understanding the dynamics of motivation, and a widely accepted framework is that of Maslow's hierarchy, (1943a, 1943b, 1954).

According to Maslow, the primary needs are at the physiological level, the lowest in the hierarchy, and include the needs for oxygen, food, water, sleep and freedom from pain. Next up in the hierarchy are the safety needs. These are physiological and psychological in nature and reflect a striving for an ordered existence in a stable, threat-free environment. Then follow the social needs, namely those for affection, a sense of belonging and identity. The esteem needs include stable self-evaluation, self-respect and the respect of others. Finally, at the self-actualization level, is the need for self-fulfilment and the realization of one's full potential. This would include the need

to make others happy too.

Originally, Maslow (1943a, 1943b) postulated that human behaviour is dominated by unfulfilled needs, with a person systematically satisfying needs at the lower end of the hierarchy before satisfying those at the top. Later, Maslow (1954) stated that human behaviour was not determined solely by one's needs but also by numerous other variables, interacting in a complex manner.

Expectancy theory

This theory of motivation (Porter & Lawler, 1975) analyzes and attempts to predict which course of action a person will follow when the opportunity arises to make personal choices. Motivation (M) to behave in a specific manner is a function of the expectancies (E) one holds about behavioural outcomes, and the value (V) assigned to these outcomes. This can be symbolically represented by

$$M = f (E, V)$$

Equity theory

Equity theory allows that one seeks a just and equitable return for what one has contributed to the successful completion of a task (Noe & Schmitt, 1986; Vroom, 1964; van Vuuren & Woolley, 1988). Compensation above or below a level subjectively perceived as equitable causes tension and dissatisfaction. The person then attempts to restore parity by means of a variety of cognitive and behavioural measures.

Kastner's model of motivation

Kastner (1988) proposed that these theories complemented each other and derived a model of motivation consisting of four interdependent components as depicted in Figure 2.6. The "Need and need activation" component was derived from Maslow's hierarchy of needs and is regarded as the basis of motivation. According to Kastner a need is experienced as an unpleasant feeling that is either conscious or unconscious. This results in tension within the person that can be described as a state of imbalance. Such imbalance causes a release of energy which serves as the drive behind any action that follows.

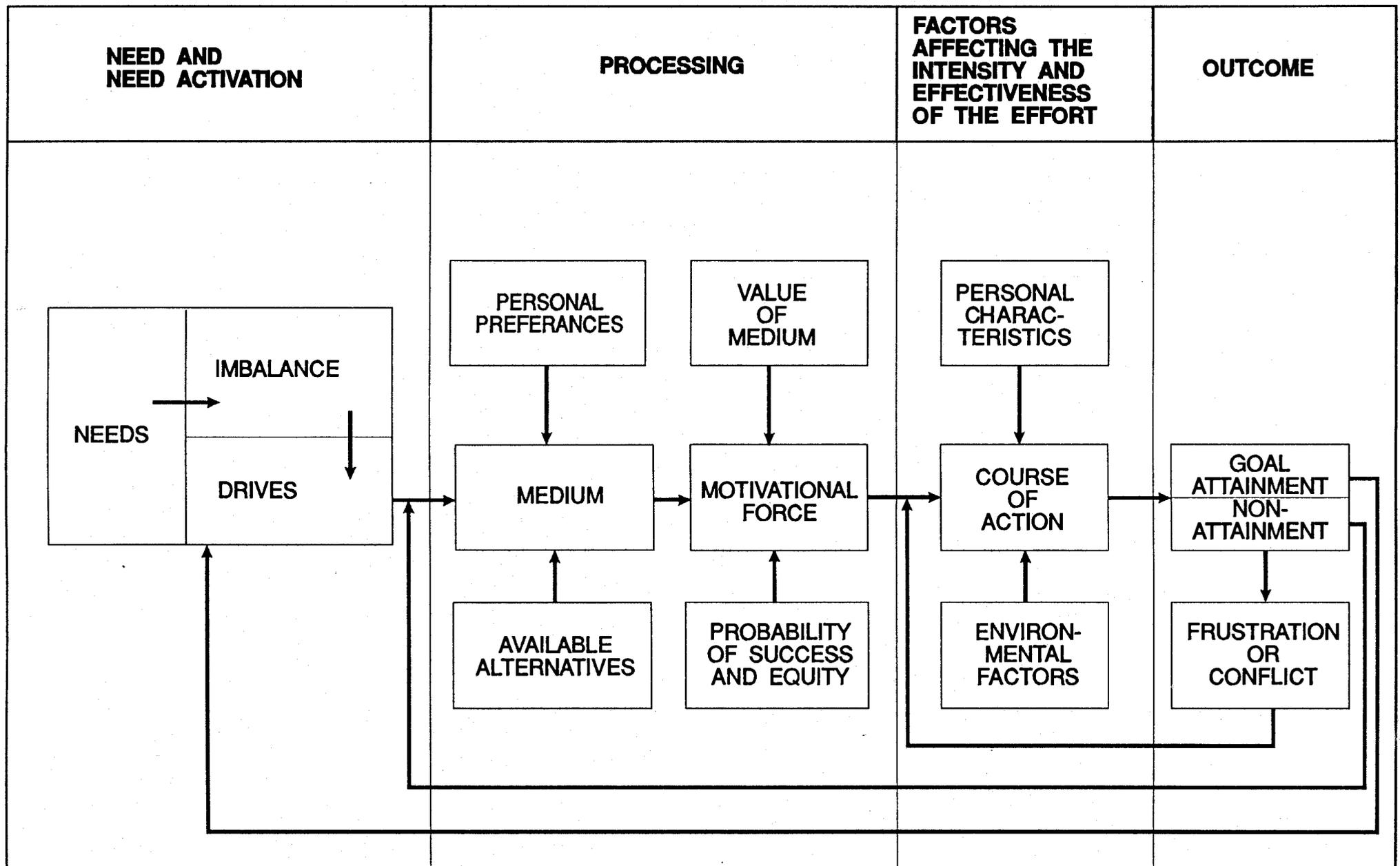


FIGURE 2.6. A MODEL OF HUMAN MOTIVATION, ACCORDING TO KASTNER (1988).

In the processing phase of motivation the person selects a medium in order to satisfy a need. A medium is described as anything a person can do, get or undergo in order to satisfy the need. The selection of a medium is influenced by the person's preferences as well as the number of mediums that are available. The motivational force to engage in a particular pattern of behaviour is a function of the value (valence, V) attached to the selected medium, and the subjective expectancy (E) that the effort exerted will lead to an equitable outcome.

Kastner says that the outcome of one's behaviour is determined by both the intensity (I) of one's motivation and by personal and environmental factors. As an example, a person could be highly motivated but not have the ability to do a task, or one could have the ability but be hampered by poor work conditions, organizational climate, relationships, or restrictions imposed by one's peers.

The outcome component refers to the results (R) of the effort put into the behaviour. Kastner proposes that when a goal is attained, a particular need becomes satisfied and other needs take its place. If the original need is not satisfied frustration and conflict occur and the person has to select another medium in order to attain the goal.

Kastner's model of motivation can then be represented symbolically as follows :

$$M = f (E.V.I.S.R)$$

where M = motivation

E = expected outcome of behaviour

V = value attached to actual outcome

I = intensity of motivation

S = individual and environmental factors

R = results of behaviour.

An important idea embodied in the model is that no single theory of motivation can as yet fully explain human behaviour. The

advantage of the model therefore lies in its combination of various theories into a single model which hopefully could provide insight into the problems pertaining to the transfer of managerial training. Trainee, manager, trainer and top management each bring into the training scene their particular needs and expectations. An equitable state, necessary for effective transfer of training, can only be attained if their needs are satisfied and their expectations made realistic.

ORGANIZATIONAL CULTURE

Culture is defined as the totality of customs differentiating one social group from another and includes all behaviour patterns, attitudes and values which are shared and transmitted by that social group. Dinsdale (1988) sees organizational culture as the relatively stable patterns of organizational thought and behaviour that have been found useful for the organization in coping with the environment and serving to bind the workforce into a functional, integrated unit. These patterns are considered sufficiently successful to be taught to new employees so that they perceive, think and feel along broadly similar lines in their own day-to-day involvement with the organization.

It is probable that organizational culture is derived from the vision that is created in the boardroom of the organization. Busschau (1988), Cox-Burton (1988), Snyder, Morin and Morgan (1988) and Wiehahn (1989) regard organizational vision as the specific long term picture of where the organization hopes to be in the future, say three to five years hence. This vision determines the mission of the organization, the philosophy or the means that the organization will use in order to attain its goal. Examples are mission statements such as being client centered, honest, viewing employees as assets, etc. These also represent the organization's values. The objectives of the organization are derived from its mission statements. They are the tangible, practical components of the organization's vision because of their characteristics of being realistic, measurable, time bound

and agreeable to all concerned.

Busschau (1988) and Cox-Burton (1988) say the trainer plays a crucial role in transferring the organizational culture created in the boardroom to those employees at the coalface. The perceptions of the board and the workers could differ because of conflicting attitudes and opinions. The trainer has to ensure that the organizational culture created in the boardroom is acceptable to those at the coalface. Intervention by the trainer in this process is, however, relatively brief - this highlights the importance of the manager's role as mentor within the triad.

Busschau (1988) says the trainer's role in the translation of organizational culture to all levels within the organization's hierarchy is possible because the trainer is seen as non-threatening. The trainer is usually perceived as having no direct control over anyone's career, and as a helper, representing management. This implies a degree of authority. It is imperative that the trainer is part of the management team that formulates the organizational culture. The resultant psychological ownership will allow the trainer to understand and accept the mission and goals, and to be aware of the underlying nature and assets of the organization so that the vision can be attained. The trainer would then be more assertive in putting the message across.

According to Hendricks (1989) and Snyder, Morin and Morgan (1988) objectives that are consistent with the organization's mission should be formulated for each department and division within the organization, and ultimately for each individual. Such objectives should serve as milestones to be followed for eventual success and to clarify what the organization is trying to achieve. In the absence of clearly defined goals, trainees may independently determine their own objectives, with a resultant lack of coordination, minimal loyalty and wasted effort.

ORGANIZATIONAL CLIMATE

Organizational climate is important to the transfer of managerial training because it is an environmental factor which influences the attitude and motivation of the trainee and important others. The correct organizational climate, critical to a change in behaviour in the work environment as a result of training, can only subsist within the appropriate organizational culture.

Landy and Trumbo (1980), de Witte and de Cock (1986), Dinsdale (1988) and House and Tosi (1963) regard organizational climate as the subjective perception by members of an organization of a relatively stable set of values of the organization. Dinsdale (1988) describes a value as an enduring belief that behaving in a specific manner is the more preferred. Values are standards against which judgements and decisions about behaviour can be made. They are stable and enduring because desired values tend to be learned in an all-or-nothing way (one cannot be a little honest), but can still be modified as a person grows and adapts to a complex environment. Values compete with each other and become organized into an integrated hierarchy. They are built on beliefs and thus guide attitudes, behaviour and ultimately the effectiveness of the organization.

Kirkpatrick (1984) proposes five types of organizational climate. The first is a preventative climate in that the trainee is explicitly instructed not to practice newly learned behaviour from the training course in his job. The second is a discouraging climate, wherein the trainee perceives subtle messages from the manager that the application of new behaviour would be barely tolerated. Any misapplication of such behaviour would have negative consequences for the trainee. A neutral climate exists when the manager does not comment on any change in behaviour in the job as a result of the training course as long as the results of such behaviour are congruent with the team's goals. In an encouraging climate the manager permits the trainee to use newly learned behaviour, even allowing the odd minor

mistake. Finally, a requiring climate prevails when the manager instructs the trainee to use newly learned behaviour because it is deemed necessary to achieve mutually agreed upon goals.

The role of the organization in the creation of the correct climate is important to the transfer of managerial training. Trainees should leave the course with a detailed, long range application plan, supported by their managers and important others, so that they do not feel alone or alien when grappling with the change process. Part of this change process requires the use of a facilitator to offer coaching and counselling. In order to enhance transfer of managerial training it is necessary to implement example setting, provide leadership and encourage identification with the organization by the triad. This can be achieved, among other things, by sharing values to which all subscribe. This in turn requires participative systems with open, constructive relationships, a sense of belonging, a sense of being needed and a sense of ownership. Help in achieving the correct organizational climate could come from two sources, the supervisor and the facilitator - both with the necessary degree of support from management (Bogorya, 1988; Bramley, 1986; Buzzotta, 1986; Carisle, 1984; Clement, 1988; Coiro, 1988; House & Tosi, 1963; Kirkpatrick, 1984; Lippert, 1987; Miranoff, 1988; Rossitter, 1988; Rutherford, 1990; Thlopane, 1990; van den Bergh, 1988; van Vuuren & Woolley, 1988).

THE INTERACTION OF ORGANIZATIONAL CLIMATE, CULTURE AND TRANSFER OF MANAGERIAL TRAINING

Possibly the transfer of managerial training can be hampered when the organizational climate and culture are incongruent. Organizational culture can change with a change in top management, crisis situations and new policy statements. There could be a change in organizational climate if the trainee acquires a new manager or fellow workers, is transferred, promoted, etc. Possibly the trainee's organizational climate could be changed as a result of newly learned knowledge and skills gained in the

managerial training course. Such changes could be insidious or dramatic. One of the tasks of the trainer is to be aware that these changes are going to occur. This could necessitate post-course facilitating action by the trainer in the work environment and tailoring the contents of the training course to the real circumstances of the trainee. It is the employees who are the organization, who create the organization's climate and who determine whether a particular organizational culture is going to be successful (Balzar, 1988; Bolt, 1987; Gale, 1989; Mohrman & Lawler, 1988; Schein, 1989). This is important because it implies participative management, commitment and a sharing of the profits resulting from the successful transfer of managerial training on the part of the triad.

CONCLUSION

In this chapter the variables most likely to determine the successful transfer of managerial training were identified, and their expected roles discussed with reference to contemporary theories in the field. The discussion produced several implicit hypotheses about how transfer may be improved. Such hypotheses are however not easy to test individually in practice. It is important to realize the interdependency of the variables that possibly affect the transfer of managerial training. It is difficult to decide where to begin their study. Intuitively it appears to be the triad because it is here that the interaction of motivation, attitudes, resistance to change, mentoring, organizational culture and climate come to the fore. It is after all the many triads which are the organization. Furthermore, such a study should involve appropriate manipulations of the variables discussed in this chapter.

On the basis of the above argument it would appear that the most promising way to facilitate the transfer of training is to devise an intervention or treatment which can be applied to the members of each triad some time after the completion of managerial training. The treatment should be adapted to the particular

needs of each triad, and should be aimed at improvements in the various factors that are expected to hinder transfer. The general hypothesis underlying such an approach is that this type of intervention will improve the transfer of managerial training relative to the amount of transfer found without any intervention. Consequently an investigation of this nature was planned. Its research design is explained in chapter 5. First, however, previous research on the transfer of managerial training will be discussed in the next chapter.

CHAPTER THREE

AN EVALUATION OF PREVIOUS RESEARCH

INTRODUCTION

The purpose of this chapter is to justify additional research pertaining to the problem of transferring the knowledge and skills learned in a managerial training course to the trainee's work environment, henceforth termed the "transfer problem". This will entail a critical analysis of past investigations, mainly during the period from 1949 until 1990.

Consideration will be given to measuring and sampling techniques, experimental designs used, the essential results obtained, and the influence of the significant variables discussed in chapter two. It should be realised that there possibly is considerable interaction between these variables and it is difficult to view them as separate, isolated entities.

MEASURING TECHNIQUES

The importance of using the correct measuring process in order to extract meaningful conclusions cannot be sufficiently emphasized. Thought is aimed at the type of measuring device used, its content and application.

The measuring instruments commonly employed are the questionnaire, logbooks or diaries, interviews and role-playing situations. Each will be separately considered.

The questionnaire

The questionnaire appears to be the most popular form of rating device. It was used to investigate the transfer of training during the last 10 years or so, by Bell and Kerr (1987), Blumenfeld (1966), Bruwelheide and Duncan (1985), Fischer and Weinberg (1988), Levy and Chemel (1987), Moore (1984), Noe and Schmitt (1986), Russell, Wexley and Hunter (1984), Salinger

(1985), Sorcher and Spence (1982), Swierczek and Carmichael (1985) and Wexley and Baldwin (1986). Most questionnaires had the following limitations :

- (a) responses often included the subjective opinions of trainees, managers, supervisors and peers;
- (b) trainees probably based their responses partly on what they thought was expected of them by the trainer and important others;
- (c) the use of Likert-type scales of measurement with an odd number of categories, which sometimes allowed an error of central tendency - respondents are often unsure or afraid to commit themselves;
- (d) the frequent use of behaviour-anchored statements to demarcate scale intervals. Examples such as "often" vs "usually" and "sometimes" vs "occasionally" are problematic due to differences in individual interpretation, definition and quantification;
- (e) the reliance upon the respondents memory could have led to inaccurate replies - sometimes about events which had occurred a year previously;
- (f) the inclusion of too few or too many items. Too few items would not allow a reliable measurement of any particular dimension whereas too many items could cause fatigue and loss of interest;
- (g) questionnaires were sometimes hastily constructed and were not tested for reliability;
- (h) some questionnaires measured only a single variable considered important to transfer.

A few questionnaires did appear to be psychometrically more suitable for evaluating the transfer process (Bruwelheide & Duncan, 1985; Fischer & Weinberg, 1988; Noe & Schmitt, 1986; Schein, 1967). Sensitive attention was given to pilot testing of the instrument, checks on item content, reliability, validity, standardization and appropriate scaling methods. The results gleaned from what previous questionnaires measured indicate that future research with questionnaires can be useful for identifying the salient individual and situational variables peculiar to a training milieu.

Diaries

Diaries (or logbooks) are another form of instrument used to measure behaviour change as a result of a managerial training course. It was used for example, by Bird (1969), Byham, Adams and Kiggins (1976), Kruger and May (1985), Stewart (1965); and Swierczek and Carmichael (1985). The accurate recording of trainees' behaviour by this means appears to be doubtful for the following reasons :

- (a) trainees often did the recording themselves thus allowing for subjective reports;
- (b) with important others, recorded incidents depicting the required change in behaviour were often based on the observers' memory or personal opinion;
- (c) the recording of incidents of behaviour was often not unobtrusive.

Sometimes observers failed to complete or return diaries to the investigator. In some instances, maintaining a "black book" was obnoxious to the observers especially if there was a delicate, satisfactory relationship between observer and trainee. Another reason why maintaining a diary failed was because the trainee or the observer were not always available. A final reason for failure was that observations were sometimes conducted over too short (half a day), or too long (nine months) a period of time.

Interviews

The interview is another often used device for measuring behaviour change as a result of a managerial training course (e.g. Bird, 1969; Clement, 1982, 1988; Fleishman, 1953; House & Tosi, 1963; Jackson & Thompson, 1972; Kruger & May, 1985; Levy & Chemel, 1987; McGehee & Gardner, 1955; Sorcher & Spence, 1982). Most interviewers evaluated training against the Reaction and Learning criteria only. Those interviews which did evaluate against the higher criteria used non-quantifiable subjective opinions and self-reports. These are subject to the same limitations as the questionnaire and diary.

A special criticism is that interviews are often unstructured, without participative goal setting and devoid of the setting up of appropriate action plans to enhance transfer of training. Such action plans could have matched the contents of the training course to the needs and values of the trainee and the organization.

Important too, is the non-inclusion of several variables when using the interview to evaluate if transfer had occurred. Most users of interviews measured change in attitude, on the assumption that such change naturally instigates behaviour change. No interviewer considered the concurrent influence of variables such as RTC, organizational climate and culture or the psychological problems of those involved in the training process.

The interview, as a part of the evaluation method, affords a valuable means of acquiring information in a face-to-face situation. However, much seems to have been neglected or not exploited. The need for further research is therefore apparent.

Role playing

Role playing as a form of behaviour modelling is enthusiastically espoused as a means of effecting transfer (Castle, 1957; Handy, 1970; McGehee & Tullar, 1978; Rosenberg, 1960; Sorcher & Spencer, 1982).

Role playing involves simulation : trainees act out situations wherein they are allowed to display their newly learned knowledge and skills in a safe environment. Measurement is against critical incidents of behaviour taught during the training course. Feedback by the trainer reinforces the trainee's realization that he is capable of applying these skills in the work environment.

Such lasting behaviour change still has to be scientifically verified. All evaluation to date has been against the Reaction and Learning criteria only. A major problem with this method of evaluation is that the observer cannot conclude if there is simply an improvement in role playing (acting as behoves the situation) or if there is an actual improvement in behaviour that is lasting across all situations. Possibly the trainee merely adopts the role expected for the exercise.

The evaluation may therefore be invalid as sufficient relevant individual and situational variables are not included. Often the content of the role playing situations is artificial, not fitting to the real job situation and irrelevant to the goals of the trainee and organization. This may have dire consequences upon the attitudes and motivation of trainees.

Possibly an improved approach would be to use an idea suggested by Wexley and Baldwin (1986). They distinguished between assigned and participative goal setting and their research revealed the latter method to achieve superior results. This notion has yet to be scientifically evaluated in a role playing situation that is not artificial and which measures the lasting effects of managerial training at the Behaviour criterion level - this allows for fruitful research.

In addition to measuring techniques, certain aspects of a research design require careful preparation and implementation to ensure accurate conclusions.

EXPERIMENTAL DESIGN

The experimental design prescribes how a researcher allocates subjects into groups who may, or may not receive a form of significant treatment. Termed the independent variable, the treatment is manipulated by the researcher to produce a change in the dependent variable. The dependent variable in this research is managerial performance.

Experimentation is expensive, time consuming and difficult to implement with the degree of rigour considered necessary to achieve useful results. Looking at past research one sees a variety of designs, some inappropriately rigorous or inadequate for their particular type of field research. Most had doubtful validity.

Blumenfeld (1966) surveyed the adequacies of early experimental designs that professed the measurement of attitude or behaviour change during a managerial training course. Of the nineteen designs considered prior to 1961, only eight used the pre- and post-test design with a comparison of results between an experimental (treatment receiving) group and a control group (not receiving treatment). A further seven designs did not use a control group and another four used no pre- or post-testing. Much criticism was also levelled at the quality of the measuring instruments used, including lack of observer reliability and lack of control for known extraneous variables such as organizational climate and culture and other individual and situational variables.

A more recent design used to investigate the validity of a managerial training course included comparable experimental and control groups, a post-test, but no pre-test (Bell & Kerr, 1987; Bruwelheide & Duncan, 1985; McGehee & Tullar, 1978). Refer to Figure 3.1. Much has been advocated for and against this "post-test only" design. Campbell (1957), Campbell and Stanley (1963) and Kane (1976) encourage the post-test only design because a

pre-test might sensitize subjects to the post-test. Furthermore, due to mortality (loss of subjects during the experiment) there could be insufficient or unequal numbers in the experimental and control groups for sensible comparison of effects.

Random selection of subjects from the target population to form the sample allows for equality of characteristics between the experimental and control group. Kane (1976) propounds that this obviates the necessity of a pre-test. However, a further improvement to such a design would be to use a pre-test which is not an obvious part of the evaluation process. Such an unobtrusive measure would remove the problem of the pre-test sensitizing of subjects to the post-test.

Much use has been made of the classic pre- and post-test design (Figure 3.2) that uses an experimental and control group (Bruwelheide & Duncan, 1985; Byham, Adams & Kiggins, 1976; Cowell, 1972; Moore, 1984; Russell, Wexley & Hunter, 1984; Sorcher & Spence, 1982). This design eliminates most threats to validity except for those of experimental mortality and the interaction of the pre-test with the treatment. Since no control group is included that is not pre-tested one is unsure if the treatment would have the same effect on subjects who were not pre-tested. This could be overcome by using an unobtrusive pre-test, or by employing a design that ostensibly takes all combinations of pre-testing and treatment into account.

Figure 3.3 illustrates such a design intended to be the ultimate in eliminating just about all the threats to validity. Solomon (1949) initiated this design and claimed that it was "the most appropriate to evaluate attitudes, opinions, personal values, behaviour change due to a managerial training course and the transfer of training". Subjects are randomly sampled and randomly assigned to four comparable groups, the essential reasoning being to assess pre-testing effects on the dependent variable and possible interaction with the post-test.

GROUP	TREATMENT	POST-TEST
EXPERIMENTAL	YES	YES
CONTROL	NO	NO

Figure 3.1. The post-test only research design according to Campbell (1957).

GROUP	PRE-TEST	TREATMENT	POST-TEST
EXPERIMENTAL	YES	YES	YES
CONTROL	YES	NO	YES

Figure 3.2. The classical research design according to Campbell (1957).

GROUP	PRE-TEST	TREATMENT	POST-TEST
EXPERIMENTAL 1	NO	YES	YES
EXPERIMENTAL 2	YES	YES	YES
CONTROL 1	NO	NO	YES
CONTROL 2	YES	NO	YES

Figure 3.3. The four-group research design according to Solomon (1949).

Bunker and Cohen (1977) implemented this design when evaluating the effectiveness of a practical electronics training course for telephone installers. The same design was applied by Bruwelheide and Duncan (1985) and Clement (1988) to evaluate managerial training courses. They found that extraneous individual and situational variables still had to be taken into account when attempting to determine behaviour or attitude change due to a training course. This implies a more holistic approach (Smuts, 1926) by considering the interaction of multiple variables in the transfer problem. Bunker and Cohen (1977), and in a separate study, Cantor (1951) and Solomon and Lessac (1968) specifically monitored the contaminating effects of the pre-test on the treatment and the post-test. Their results indicate that it was not the influence of the experimental design but that of some unknown variables that prevented unambiguous conclusions.

Such research shows that the four-group design has not yielded conclusive results when applied to the transfer problem. One needs to guard against employing only standard designs simply because they are deemed unquestionably suitable in all evaluation situations. They are not modifiable so as to optimize a specific study.

Notwithstanding previous shortcomings in measuring and sampling techniques, experimental designs and the calibre of results obtained, there was research that did consider the importance of the effect of various circumstantial variables. Some of these were recognized but not scientifically proved relevant to the transfer problem. The review in the next few sections shows the necessity of further research.

MENTORING AND INTERPERSONAL RELATIONSHIPS WITHIN THE TRIAD

There has been no investigation on the direct effects of mentoring or interpersonal relationships within the triad as variables in the transfer problem. All relevant research considered their effects as independent and peripheral. They are

discussed together because of their interrelationship and because of the paucity of research literature devoted to their influence.

The research of Wexley and Baldwin (1986) led them to propose the necessity of using feedback by the trainer about the trainee's progress during the training course and within a counselling milieu. They included participative goal setting for subsequent implementation of the contents of the training course to the post-course environment. As the trainees were university students, participative goal setting did not involve a third person (the manager in the work environment) so that the role of mentor was adopted by the trainer. Their conclusion was that goal setting was superior to behaviour modelling for facilitating transfer.

Similarly, Levy and Chemel (1987) used action plans set up between trainer and trainee and at a later stage, between trainee and manager in order to improve transfer. An action plan is a schedule of activities one has to complete by involving the three parties together. In this manner, common goal setting would be meaningful for both managers and trainees - the manager acting as mentor and the trainer being a facilitator.

Mutual support among a group of trainees to enhance transfer after a training course was proved by Kruger and May (1985) to be of limited use. The purpose of the group was to provide a structure for feedback, accountability and supportive contact in the work environment. A group leader fed back to each group member the progress being made by the other trainees in meeting their goals. This method was determined to be unsuccessful because of lack of interest by the trainees, the lack of regular contact between them, their pressure of work and the absence of an interested manager.

The sparse evidence on the effects of mentoring and the interpersonal relationships within the triad indicates a need for further investigation. Is a mentor necessary and should the trainer or

manager adopt that role in the transfer problem? Are there critical periods in the transfer process? Such questions lay claim to further research.

The above two variables are, however, not the only facets relevant to the transfer problem. The review of the literature indicates the effects of further variables, amongst them being the attitudes and motivation of the triad.

TRIAD ATTITUDE AND MOTIVATION

Once again there is a dearth of evidence supporting the effects of these two variables in the transfer problem. The available evidence is furthermore of a peripheral nature, without definite results and so indicating the need for additional enquiry.

The journals used by Kruger and May (1985) proved that one has to take into account the attitudes of the trainees during transfer. After their training course, trainees had to swap journals which were of similar content. They believed that they were given a rehash of something they already knew which would be of no value to them. This gave rise to negative evaluation of the procedure and they were demotivated to continue with the scheme. This lack of interest on the part of the trainees also applied to their peers and managers. Furthermore, the group leader who had to co-ordinate the procedure and was held accountable for its success, was given no recognition for the extra work. The group leader was one of the trainees.

In contrast, Broad (1982) discerned that the attitudes of trainees were positive because of the inclusion in the transfer process of factors such as the blessing of management, a pre-training course preparation between manager and trainee, support during the training, linkage of the contents of the training course to the job environment and follow-up by the trainer and important others after the training course. Similar results were found by Handy (1970), House and Tosi (1963) and Schein (1967).

Other research revealed that several months after a managerial training course approximately fifty percent of trainees were motivated into implementing changes in their job environment. In independent studies, Bird (1969) and Byham, Adams and Kiggins (1976) concluded that this could not be attributed solely to the training course. Besides the managers' involvement in the training and transfer process, other unknown factors were also present.

Levy and Chemel (1987) and Wexley and Baldwin (1986) agreed that participative goal setting was an important motivating factor in facilitating transfer. An associated motivating factor mooted by Levy and Chemel (1987) was the issuing of a certificate to the trainee once there was proof of changed behaviour as a result of implementing action plans. Unfortunately there is no mention of how ongoing such action plans were and how lasting behaviour change was. There is also no undeniable proof of the effects of these certificates as the motivating device.

No research considered any of the classical motivation theories in order to use motivation as a variable to promote transfer. Possibly no single theory would suffice when one considers the individual and situational factors pertaining to each trainee. Perhaps this why the model proposed by Kastner (1988) and discussed in chapter two, could instigate additional study.

Bird (1969) and Byham, Adams and Kiggins (1976) intimated that other factors besides the role of trainers and managers were relevant to the transfer problem. Such variables include the organizational culture and climate, and resistance to change (RTC).

RTC, ORGANIZATIONAL CULTURE AND CLIMATE

There has been little useful research to examine the effects of RTC, organizational culture and climate with respects to the transfer problem. Possibly this is due to the fairly recent

entry of these three variables into this domain.

House and Tosi (1963) evaluated attitude change during a managerial training course. One of their conclusions was that a compatible organizational climate was a necessary but not a sufficient condition for the successful transfer of managerial training. They were of the opinion that organizational climate and various unknown trainee individual characteristics were relevant to transfer of training. In similar vein, Handy (1970) followed up on the previously mentioned research of Schein (1967) and found that individual trainee attitude change patterns could only be explained within the context of the trainee's immediate work environment. Smaller companies had more transfer success than relatively larger companies for a number of reasons. Such reasons included increased interest by top management in training activities, the greater visibility afforded to the trainee and the endorsement by top management of a trainer's post-training course activities. These findings were confirmed by the investigations of Broad (1982) and Levy and Chemel (1987).

The latter research also concluded that if there was resistance to transfer (to a change of behaviour on the job) then it arose because of the extra post-training course tasks. The additional tasks arose from the contents of the action plans set up by the trainees and the trainer. There could also have been resistance to their implementation by the managers of the trainees because of their non-involvement.

Bird (1969), Clement (1982), Fleishman (1953) and Jackson and Thompson (1972) when evaluating the effectiveness of a managerial training course for behaviour change, deliberately looked at the effects of organizational climate. Before the training course, trainees considered themselves as individuals and not part of a team. They perceived rivalry between themselves and that they were not an integral part of management. Immediately after training they identified more with management. This led to a deterioration in their pre-course authority over their workforce.

This gave rise to stress when trying to attain organizational goals and they eventually re-identified with their workforce rather than management and so began to attain goals again.

No research could be found which properly studied the effects of organizational culture in the context of the transfer problem. This could be because concepts such as organizational missions, values, visions, goals, etc. are relatively recent ideas which still have to be addressed by researchers.

CONCLUSION

The review of previous research in this chapter has proved useful because it affords direction for more research about the transfer problem. The investigations, some good and others inadequate, highlighted that the discerning researcher will have to look at the following :

- (1) an effective field experiment devoid of excessive rigour;
- (2) a holistic approach to research taking cognizance of the interdependency and interaction of the variables discussed in chapter two;
- (3) the evaluation of more than a single aspect of managerial training, and
- (4) the evaluation of managerial training beyond the Reaction and Learning criteria.

Before describing the approach that was adopted for such an investigation it is important to describe the content of the managerial training pertaining to this investigation.

CHAPTER FOUR

THE MANAGERIAL TRAINING COURSES

INTRODUCTION

Transnet offers twenty three different internal, "soft-skills" training courses to enable employees to perform better in their work. Some of the training courses are specific to a particular job, for example, Telephone Etiquette intended for secretaries and receptionists. Others are of a more general nature and cover topics such as motivation, delegation, self-development, leadership, the effective handling of meetings, etc. There is no threat attached to these training courses because they are not a pre-requisite for promotion, no record is kept of behaviour, participation and achievements during their presentation, and there are no costs involved for the trainees.

DESCRIPTION OF THE MANAGERIAL TRAINING COURSES

The training courses included in the present research are of a general nature. They are considered pertinent to a large cross-section of employees, including all managers of Transnet and, ideally, all employees about to become managers. The training courses were created out of the general managerial philosophies of various authors (Blake & Mouton, 1985; Fayol, 1949; Hersey & Blanchard, 1982). These theories cover important concepts relevant to industrial relations, conflict situations and management by objectives. Appropriate use is made of supporting, accommodating and direction-giving behaviours under the guise of the effective planning, organizing, directing and controlling of people and material.

According to Fayol (1949) planning includes the setting of realistic objectives, forecasting, estimating and activity scheduling. Organizing entails the effective use of people and material, allowing for task identification, different roles, the use of organizational charts, etc. Directing means motivating,

communicating and leading persons in the attainment of objectives. Control is constantly exercised in the foregoing three activities by evaluating if behaviour is congruent with predetermined goals.

The training courses are labelled "Supervisory Interpersonal Skills" and the "Orientation Seminar in Management", are copyrighted and are the result of extensive research by the Manpower and Human Resources Department of Transnet. Their validity has never been scientifically demonstrated but they are nevertheless considered important because they address critical face-to-face interactions between individuals in conflict and problematic situations. Many researchers argue that effective interpersonal skills, including the ability to analyze each individual and situation are the key to management prowess (Brush & Licata, 1983; Bruwelheide & Duncan, 1985; Clement, 1982; 1988; Handy, 1970; Swierczek & Carmichael, 1985). The following brief description of the training courses will reveal that they meet Martin's (1957) criteria for internal validity and Kirkpartick's (1959) Reaction and Learning criteria for evaluating the effectiveness of a managerial training course.

The Supervisory Interpersonal Skills training course is of four days duration. The course begins with a welcoming session in which the two trainers introduce themselves to the trainees (usually ten to fifteen persons) and the trainees introduce themselves, each in turn to the group. Topics covered during these introductions include family circumstances, hobbies, sport, content of career and a brief job description. This is important because it "breaks the ice" and gives the trainer insight with respect to each trainee. Questions are allowed and there is usually much bantering and leg-pulling which enhances a positive atmosphere.

Then follows an explanation of the objectives of the managerial training course and its contents, the latter being the subjects to be covered, the training course programme, the roles of

trainer and trainee, etc.

The trainees are then given a case study as preparation for the pre-test. They are individually pre-tested in a role-playing situation of about fifteen minutes duration. The role-playing situation is a one-to-one interview with a "subordinate" (a trained role-player) about some aspect of poor work performance.

During the interview the trainer evaluates the trainee's interpersonal skills and managerial prowess by noting everything the trainee says and does on an Observer Report form (Appendix 1). Scoring is done according to a six point, Likert-type scale against a predetermined standard, ranging from one (very poor) to six (excellent). This assessment technique is discussed in more detail in the next chapter. Scores on the pre-test are usually low and trainees get immediate feedback (they are thus made aware that there is a need for training). While a trainee is being pre-tested, the rest of the group are kept busy with reading material.

After the pre-testing session the trainees are shown a video portraying typical, awkward manager-subordinate conflict situations in the work environment. This further enhances their realization of the need for the training course. Then there is a discussion relating the contents of the video to similar problems typical to each trainee's work environment.

The trainer guides this discussion into the presentation of a general theoretical module about the dynamics of supervision and management. Salient is that the trainer again encourages group discussion so that theory becomes related to each trainee's work environment, job climate and the organizational culture. Of special relevance is observing trainee attitude and that the trainer maintains a sense of positive regard for the organizational vision, values and culture. The values and mission of Transnet are set out in Appendix 2.

Hereafter the core of the training course is introduced. This is a model of an interaction process between a manager and an employee using fourteen distinct elements of behaviour considered appropriate for resolving conflict situations. The model, depicted in Table 4.1 illustrates how the principles of management by objectives are effectively applied to attain the organization's and the triad's goals.

The first day of the managerial training course concludes with a brief resumé, a forecast of the second day's content and the allocation of homework - a criterion test about the dynamics of supervision. This serves to intensify trainee involvement in the training course.

Table 4.1 Behaviours used to manage subordinates to attain organizational goals.

Behaviour	Managerial Component
Supporting	
1. Give recognition	Directing
2. Give encouragement	Directing
3. Give help	Organizing, Planning.
Accommodating	
4. Ask for opinions	Organizing, Planning.
5. Ask for suggestions	Organizing, Planning.
6. Allow discussions	Directing, Planning.
7. show understanding	Directing, Controlling.
8. Show interest	Directing, Controlling.
Direction-giving	
9. Make suggestions	Directing, Controlling.
10. Give opinions	Directing, Controlling.
11. Give clarity	Directing, Controlling.
12. Ask for clarity	Controlling, Planning.
13. Summarise	Controlling, Directing, Planning.
14. Set a follow-up date	Controlling, Directing, Planning.

The second day of the course commences with a discussion of the previous day's homework, ensuring that there are no misconcep-

tions amongst the trainees. Discussion is encouraged and the trainer endeavours to keep this job-related.

This is followed by a video displaying how the interview of the pre-test should have been conducted. It's purpose is two-fold. The first is to expose the trainees to a correct model and secondly, to point out in a subtle manner where the trainees have a need for further development.

The video is then again presented with the trainer pausing after each element of behaviour exhibited by the actor assuming the role of the manager. The trainees are taught what element of behaviour is being used by means of testing and teaching questions, with the elements being placed into their respective categories of management.

The trainees are then given a brief insight into the conflict situations which they could expect to encounter in the work environment in their role as manager and supervisor. These include :

- (1) welcoming a new worker,
- (2) giving an instruction to an employee,
- (3) handling a complaint from an employee, and
- (4) handling poor work performance by an employee.

The trainer then leads discussion into the first of the aforementioned conflict situations, the welcoming of a new worker, and the appropriate application of a model depicting interaction between manager and subordinate (Table 4.1). The discussion includes situations such as being inducted into the organization, or new department as a result of being promoted or transferred. A video presentation of a suitable model of this situation is viewed and as before, reviewed with appropriate pauses so that elements of managerial behaviour can be categorized. This section of the training course is completed by each trainee playing the role of manager and also as the new worker within typical job-related situations. The remaining trainees

and the trainer evaluate the trainee playing the role of manager along the dimensions depicted in Table 4.1. Feedback is immediate after each role playing session, is of a positive nature and given by the group guided by the trainer.

The rest of the conflict situations and the training course as a whole, are handled in similar vein. Extensive use is made of video presentations, discussions, role playing, testing and teaching questions, case studies, transparencies, homework., etc. Finally, the trainees are given instructions for the post-test, an interpersonal interaction similar to the pre-test.

After the post-test, feedback is given individually to each trainee. This includes a comparison of their pre-test scores with those of the post-test - there is usually a gain in scores from a two (poor) to a five (good) or even six (excellent). Further feedback may include positive remarks about their active participation during the training course and warnings of obstacles which could be expected in the work environment which possibly could affect their practising of newly learned skills and knowledge.

The training course "Orientation Seminar in Management", also of four days duration, concentrates more intensively on the managerial elements of Planning, Organizing, Directing and Controlling as previously defined by Fayol (1949). Similar to the interpersonal skills course each element is presented, discussed and then followed up by Learning criterion exercises in the form of case studies and paper-and-pencil tests. A comparison of pre- and post-test scores allows trainees to realise the extent of their development during the course.

The managerial training courses are concluded with a questionnaire to measure the reaction of the trainees to the contents of the training courses and their possible useful application to the trainee's jobs. Without exception, all reactions to the contents of the training course and the trainer are favourable. The same

though, cannot be said of comments about applying the contents of the training course to their jobs. Trainees complain about unrealistic or ambivalent goal-setting, shortcomings of important others and environmental threats. Relevant factors were discussed in Chapter Two. These complaints initiated an investigation (addressed in chapter 5) why managerial training is not optimally transferred to the work environment.

CHAPTER FIVE

METHOD OF INVESTIGATION

INTRODUCTION

This chapter contains a description of two experiments investigating the transfer of knowledge and skills acquired in a managerial training course to the work environment. A description of the work environment in which the study was conducted will be given so as to provide the necessary background for the rest of the chapter. Then follows a discussion of the first experiment with a portrait of the subjects, their selection and allocation to the experimental design. Next is an explanation of the second experiment with an exposé and vindication of the measuring instruments. The chapter continues with a discourse about the treatment process considered vital to the successful transfer of training and concludes with a presentation of the post-test.

THE WORK ENVIRONMENT

The company where the experiments were conducted was Spoornet, the largest division of Transnet (formerly the SA Transport Services). Spoornet employs approximately one hundred thousand persons and basically has two large subdivisions, Infrastructure and Rolling Stock (Rolmat). Rolmat embraces the research and design, procurement and maintenance of electric and diesel locomotives, railway trucks, test vehicles, specialized containers and anything else that moves over steel railway tracks.

Infrastructure consists of the research and design, provision and maintenance of the railway track, buildings, structures, signalling and telecommunication systems, etc, necessary to keep the rolling stock moving efficiently.

Spoornet uses managers at various hierarchical levels to effectively budget and deploy people and material to obtain

predetermined organizational goals congruent with the Division's mission and value system. The managers employ supervisors (the trainees) to control employees in the work environment in order to ensure that individual goals are attained. All of these persons operate in different departments within Rolmat and Infrastructure - these departments are typical of a large sized company and are spread across ten regions within the country.

The Subjects

The subjects in the two investigations were drawn from a population that comprised all who had attended the managerial training courses described in chapter four. The content and size of the sample was determined by the type of experimental design deployed and amongst the subjects were directors, engineers, technologists, technical supervisors, computer specialists, draughtsmen and clerks. Their domain of duties involved engineering, scientific, technical, administrative and managerial work. Qualifications included various degrees, diplomas, specialized certificates and matric or less, and all were trained to perform in their jobs. Thus all were supposedly well acquainted with the organization's culture and climate.

Of concern in any field experiment is random sampling. A random sample is such that every member of the defined population has an equal probability of being included in the sample. The experimental designs that were used in this research necessitated restricting the sample to include only those units comprising a manager controlling supervisors from the total population of all persons who had received managerial training. This meant grouping the supervisors (trainees) into sampling units such that each unit was under the control of a common manager. This matched the members of the treatment and control groups with respect to their managers, and therefore also partly in terms of the variables discussed in chapter 2 which are deemed as affecting the transfer of managerial training.

The task of identifying these sampling units was given to the

training course coordinators because they had the records of all who had attended the training courses. The preclusion of the experimenter from the selection of the sample units eliminated some bias in the compilation of the sample because the coordinators did not know the reason for identifying the sample units. Sampling was not altogether random because of the nature of the sample units; a manager controlling an assortment of supervisors instead of an equiprobable selection of anyone who had completed both managerial training courses. Further, sampling was restricted to Spornet and did not include the other business units of Transnet.

With these restrictions imposed upon sample selection Ferguson (1971) suggests that sampling can still be of a pseudo-random nature if an "a posteriori" investigation of a variety of characteristics of the sample indicates that it does not differ appreciably from the target population. Although random sampling from the target population is preferred, its use would eliminate much useful field experimentation (Argyris, 1968; Bunker & Cohen, 1977).

This research compared the meaningful characteristics of the samples of both investigations against those of the defined population. The objective was to validate the content of the samples. Such meaningful characteristics included qualifications, type of experience, place of employment and content of work. Within each sub-population, ie, draughtsman, technologist computer specialist, etc, these characteristic's were found to be similar for the sample units and the sub-population that they were drawn from.

It is imperative to ensure that the allocation of subjects to the experimental and control groups of the experimental design is truly random. This ensures that differences in characteristics between the two groups are small and randomly distributed. Hence any difference in results between the groups can be attributed to the presence or absence of the treatment process. The

contents of the first investigation will now be presented.

THE FIRST EXPERIMENT

The first experiment was a failure. The reasons for the failure will be discussed so as to justify the second investigation and to enlighten future researchers about the pitfalls inherent to research in this field.

The experimental design

The experimental design used in the first study was the Solomon four-group design depicted in Figure 3.3, with subjects in each of the four groups. It was reasoned that this design would eliminate the majority of threats to the internal and external validity of the investigation (Solomon, 1949). The names of the subjects provided by the coordinators (and sometimes the managers) were typically listed as follows :

1. Mr White
2. Mr Swart
3. Mr de Bruin
4. Mr Green

The order in which names were listed was suspected to be non-random and governed by factors such as need of treatment, favouritism, availability, compatibility and other sources of bias.

To ensure the random allocation of the subjects to the groups of the experimental design the following procedure was used. The four listed trainees of each sampling unit were consecutively labelled T1; T2; T3 and T4. A computer programme was used to randomize the order of these labels in each of the sampling units. These formed sets of labels and the first set was as follows :

$$S1 = [T2; T3; T1; T4]$$

Using the example of a typical list of names the first set became

S1 = [Mr Swart; Mr de Bruin; Mr White; Mr Green]

and this allowed for the random allocation of a listed trainee to any one of four positions in a set. A similar computer programme was used to randomize the order of the treatment groups (E1 and E2) and the control groups (C1 and C2) into sets. The first set was

U1 = [E1; C2; E2; C1].

Combining the random allocation of the listed trainees, S, with the random allocation of the sets, U, allowed for the random allocation of the listed trainees to any one of the treatment or control groups. Using the example of the given list of subjects, their allocation was then as follows :

SUBJECT	GROUP	PRE-TEST	TREATMENT	POST-TEST
White	E2	Yes	Yes	Yes
Swart	E1	Yes	Yes	Yes
de Bruin	C2	Yes	No	Yes
Green	C1	Yes	No	Yes

Hence it was ensured that the allocation of subjects to the experimental groups was random and devoid of any influence by the researcher, managers and coordinators. Initially there were 47 sampling groups.

The pre-test

The pre-test observation period was intended to stretch uninterrupted over three months for each subject at least six months after the managerial training courses. The pre-test comprised two measuring instruments; diaries to unobtrusively record overt acts or critical incidents of behaviour, and a questionnaire designed to evaluate the trainee's attitude towards managerial training and perception of organizational climate. Each measuring device will be briefly portrayed.

The diaries

The diaries were an attempt to discern if there was some lasting change in behaviour as a result of the training courses. Any such change in behaviour was to be recorded by the manager as a critical incident. The diaries (logbooks) allowed for a description of the critical incident of behaviour, the date on which it was performed and whether it was of a positive or negative nature.

A critical incident is defined by Flanagan (1954) as an observable human activity, complete in itself and which has a significant affect in a situation so that an observer can make inferences and predictions about the person performing the act. The critical incident technique follows a set of procedures according to defined criteria for the sensible recording of behaviour. These criteria include that only simple types of judgements are required of the observer, reports are made only by competent observers and all observations are evaluated against previously agreed upon standards. One further important fact is that Flanagan regards the tendency for a number of independent observers to make the same observation as a measure of the objectivity of the observation.

The questionnaire

The questionnaire (Appendix 3) was essential because it was difficult to glean the effects of organizational climate and trainee attitude on the transfer of training. The questionnaire allowed for the quantification of these two variables a suitable time (at least six months) after the managerial training courses. Another reason for using the attitude questionnaire was that management had to be convinced that the organization would gain from this research because of the expense involved. Freedman, Sears and Carlsmith (1980) and Hofmeyer and Maitland (1987) list further reasons why attitude surveys are important to an organization and which are considered relevant to the transfer of managerial training :

- (1) Attitude surveys are a means of improving communication between all hierarchical levels within the organization. One wonders if there is a difference between what management thinks the attitudes of the employees are and actual attitudes. Managers and trainees were given feedback on the results of their responses which revealed their perceptions of and attitudes towards organizational climate and managerial training.
- (2) Attitude surveys may be a catalyst for change in that knowledge taken from the responses could be used to inform and guide future decision making. This aspect proved useful during the treatment phase of the investigation and was of help in setting objectives during the interviews.
- (3) Attitudes are a source of information in determining the morale and views of various demographic groups. It could be that the attitudes about managerial training and perceptions of organizational climate differ between the managers and the trainees.

Hofmeyer (1984), Hofmeyer and Maitland (1987) and Huysamen (1980) offer guidelines on the development and use of measuring instruments, some of which were adopted in the development of the questionnaire used in this study. The first guideline involved the planning of the instrument and its specifications. This meant describing the purpose of the instrument, which attributes were to be measured, the nature of the target population, test item format, and how the responses were going to be analyzed and used.

The second guideline related to the development of the items forming the instrument and having their content evaluated by others involved in that specific field. The questionnaire was opened to criticism by ten independent persons involved in managerial training. Four of them were registered industrial psychologists, three were students of psychology at masters

degree level, one a professional linguist and the remaining two chief directors. Feedback from all was similarly favourable. The items allowed for easy analysis as responses to each item were either "Yes" or "No", corresponding to a one or zero respectively.

A third recommendation is the informal administration of the questionnaire to a small group within the target population. This allowed for monitoring of the reactions of the respondents so as to further refine the items. To this means the instrument was pilot-tested with eighteen persons comprising administrative and technical personnel. Only eight items (of 160) had to be slightly modified.

As a result of the fourth guideline offered by Hofmeyer (1984), Hofmeyer and Maitland (1987) and Huysamen (1980) the results and analysis of the pilot administration of the instrument was discussed with the aforementioned ten independent persons. All expressed satisfaction with the questionnaires' final format and content - the respondents of the pilot administration found the exercise stimulating and interesting.

The final questionnaire contains 160 items evenly divided among sixteen dimensions (subscales). Twelve dimensions were devoted to the respondents perceptions of the organizational climate. A description of the twelve types of climate appears in Table 5.1.

Dinsdale (1988c) promulgated twelve types of organizational culture which encompassed the vision, values and mission of an organization. As proposed in chapter two, there is an organizational climate which subsists within any such culture, originating from it, yet also influenced and dependent upon the dynamic interpersonal relationships that exist between the various managers and supervisors. These suppositions led to the concept of the twelve organizational climates and it was from these that the items of the questionnaire originated. The five types of organizational climate proposed by Kirkpatrick (chapter two) were

Table 5.1 Twelve possible organizational climates.

Type of climate	Label	Description
Humanistic-Helpful	HH.	People are managed in a participative and person-centered way. Members are expected to be supportive, constructive, and open to influence in their dealings with one another. (Helping others to grow and develop; taking time with people).
Affiliative	AFF.	People place a high priority on constructive interpersonal relationships. Members are expected to be friendly, open, and sensitive to the satisfaction of their work group. (Dealing with others in a friendly way; sharing feelings and thoughts).
Approval	APP.	Conflicts are avoided and interpersonal relationships are pleasant - at least superficially. Members feel that they should agree with, gain the approval of, and be liked by others. (Making sure people accept you; "going along" with others).
Conventional	CON.	People are conservative, traditional, and bureaucratically controlled. Members are expected to conform, follow the rules, and make a good impression. (Always following policies and practices; fitting into "the mold").

Type of climate	Label	Description
Dependent	DEP.	People are hierarchically controlled and non-participative. Centralized decision making leads members to do only what they are told and to clear all decisions with superiors. (Pleasing those in positions of authority; doing what is expected).
Avoidance	AVO.	People fail to reward success but nevertheless punish mistakes. This negative reward system leads members to shift responsibilities to others and avoid any possibility of being blamed for a mistake. (Waiting for others to act first; taking few chances).
Oppositional	OPP.	Confrontation prevails and negativism is rewarded. Members gain status and influence by being critical and thus are reinforced to oppose the ideas of others and to make safe (but ineffectual) decisions. (Pointing out flaws; being hard to impress).
Power	POW.	These non-participative organizations are structured on the basis of the authority inherent in members' positions. Members believe they will be rewarded for taking charge, controlling subordinates and, at the same time, being responsive to the demands of superiors. (Building up one's power base; motivating others in any way necessary).

Type of climate	Label	Description
Competitive	COM.	Winning is valued and members are rewarded for out-performing one another. People in such organizations operate in a "win-lose" framework and believe they must work against (rather than with) their peers to be noticed. (Turning the job into a contest; never appearing to lose).
Competence/perfectionistic	PER.	Perfectionism, persistence, and hard work are valued. Members feel they must avoid all mistakes, keep track of everything, and work long hours to attain narrowly defined objectives. (Doing things perfectly; keeping on top of everything).
Achievement	ACH.	Characterizes organizations that do things well and value members who set and accomplish their own goals. Members of these organizations set challenging but realistic goals, establish plans to reach these goals, and pursue them with enthusiasm. (Pursuing a standard of excellence; openly showing enthusiasm).
Self-Actualization	SA.	Characterizes organizations that value creativity, quality over quantity, task accomplishment and individual growth. Members of these organizations are encouraged to gain enjoyment from their work, develop themselves, and take on new and interesting activities. (Thinking in unique and independent ways; doing even simple tasks well).

included among the twelve types covered by the questionnaire.

Attitudes towards managerial training were important to measure for two reasons. First, the instrument measuring the reaction of the subjects to the managerial training courses may have been affected by the euphoria caused by the managerial training course itself, as it was administered too soon after. Second, negative remarks made some time after the managerial training course by the trainees and important others about the application of newly learned knowledge and skills of the training course in the job environment indicated the possible importance of attitudes in studies of the transfer problem.

Four attitudes towards managerial training were measured by the questionnaire. The items were interspersed with those measuring perceptions of organizational climate in order to prevent the respondent perceiving what was being assessed and to prevent response sets. The subscales are described in Table 5.2.

A one-off administration of the questionnaire to 76 subjects was used to determine its reliability. Responses were obtained before the treatment process began. The dichotomous nature of the responses demanded by the questionnaire lent weight to the use of the Kuder-Richardson Equation 20 (KR20) to measure reliability. The equation is expressed as follows :

$$R = (n/[n - 1])((s - \Sigma pq)/s)$$

where

R	=	KR20 reliability of a subscale
n	=	number of items in a subscale (10)
s	=	variance of scores on a subscale (N = 76)
p	=	proportion of "Yes" responses for an item
q	=	proportion of "No" responses for an item
Σpq	=	the sum of the products of p and q for n items.

The statistics and reliability coefficients applicable to the 16 subscales are depicted in Table 5.3.

Table 5.2 Four attitudes towards managerial training.

Type of attitude	Label	Description
Worthwhile. Is managerial training considered worthwhile.	WO.	Do the participants feel that new skills and knowledge are learned in managerial training courses? Is such attendance seen as beneficial and essential? Is the expense involved considered necessary?
Ability. Do the participants think they can link managerial training to their jobs.	AB.	Do the participants and their managers want to apply the contents of the training courses into their jobs? Is there any resistance from important others? Should the trainer be involved in the tailoring process?
Manager. Evaluation of Manager involvement in managerial training.	MAN.	Should the managers be involved in selecting, attendance, and tailoring of the training courses? Should the managers also attend the same training courses?
Threats. Do the participants feel any threat associated with managerial training?	TH.	Is anxiety felt during the training process? Are managers informed of achievements during training? Are records kept that can affect the trainee's career?

Table 5.3 Reliability and statistics pertaining to the sixteen subscales of the questionnaire.

SUBSCALE	STATISTICS		
	M	S	KR20
Attitudes			
Worthwhile	7,70	2,60	0,64
Ability	7,10	3,40	0,65
Manager	6,60	2,30	0,34
Threats	4,40	5,30	0,67
Climates			
Humanistic - helpful	8,20	4,13	0,78
Affiliative	8,20	4,40	0,79
Approval	4,80	3,50	0,42
Conventional	6,90	2,60	0,44
Dependent	6,00	4,10	0,58
Avoidance	4,00	3,80	0,56
Oppositional	3,40	2,77	0,51
Power	5,40	2,80	0,34
Competitive	4,50	4,77	0,61
Perfectionist	6,30	3,60	0,46
Achievement	8,50	3,10	0,60
Self-actualizing	8,20	4,60	0,75

The reliabilities of the subscales vary between 0,34 and 0,79. Although some values are not very high, most of them were considered adequate for the purpose of this study.

The treatment process

The treatment process constituted an interview involving the triad (the manager, trainee and researcher). The aim of the interview was to tailor the contents of the two managerial training courses to each diad's specific job environment, taking into consideration any job-related or personal problems of the trainee or manager. The researcher under the guise of trainer, visited each diad at their place of employment, including centres such as Durban, Pietermaritzburg, Cape Town, Worcester, Beaufort-West, Kimberley, Pretoria, Germiston, Standerton and Johannesburg. This was necessary for two practical reasons, namely, that "treatment" happened in a familiar environment for the diad and expense was kept to a minimum.

Treatment for each diad was scheduled to begin at least nine months after the managerial training courses. The duration of treatment was envisaged as averaging four hours - some interviews were short, others longer depending on the nature of the problems to be addressed and the variables detracting from the transfer of training. Two interviews per day were planned. This eliminated fatigue on the part of the researcher and subjects, optimized concentration and allowed time for immediate compilation of important notes and reports. Due to the spread of the diads geographically and the job demands of all involved, the treatment phase was spread over nine months.

Although the use of diaries during the pre-test phase was a failure most of the managers were aware of problems associated with the trainee in either the personal or job environment. Significant problems within the job environment were lifted out by the responses of the diads to the questionnaire. The responses of each trainee and manager were compared graphically in order to ascertain significant differences of perception in organizational climate. An example is given in Figure 5.1, the discussion of which will illustrate the usefulness of the questionnaire in the treatment phase of the investigation.

Firstly, the questionnaire afforded the researcher a means of subtlety probing into the job related problems affecting the transfer of training without resorting to one of the deceptive pitfalls earmarked by Kelman (1967). The respondents knew that their perception of organizational climate was being assessed but did not realise that prevalent interpersonal problems would also be gleaned.

Secondly, the questionnaire allowed the researcher insight into the form of treatment that would be the most appropriate in tailoring the contents of the managerial training courses to each diads' job environment. In some cases, treatment would be merely an action plan-setting discussion with the diad, and in others, a referral of a member of the diad for specialised

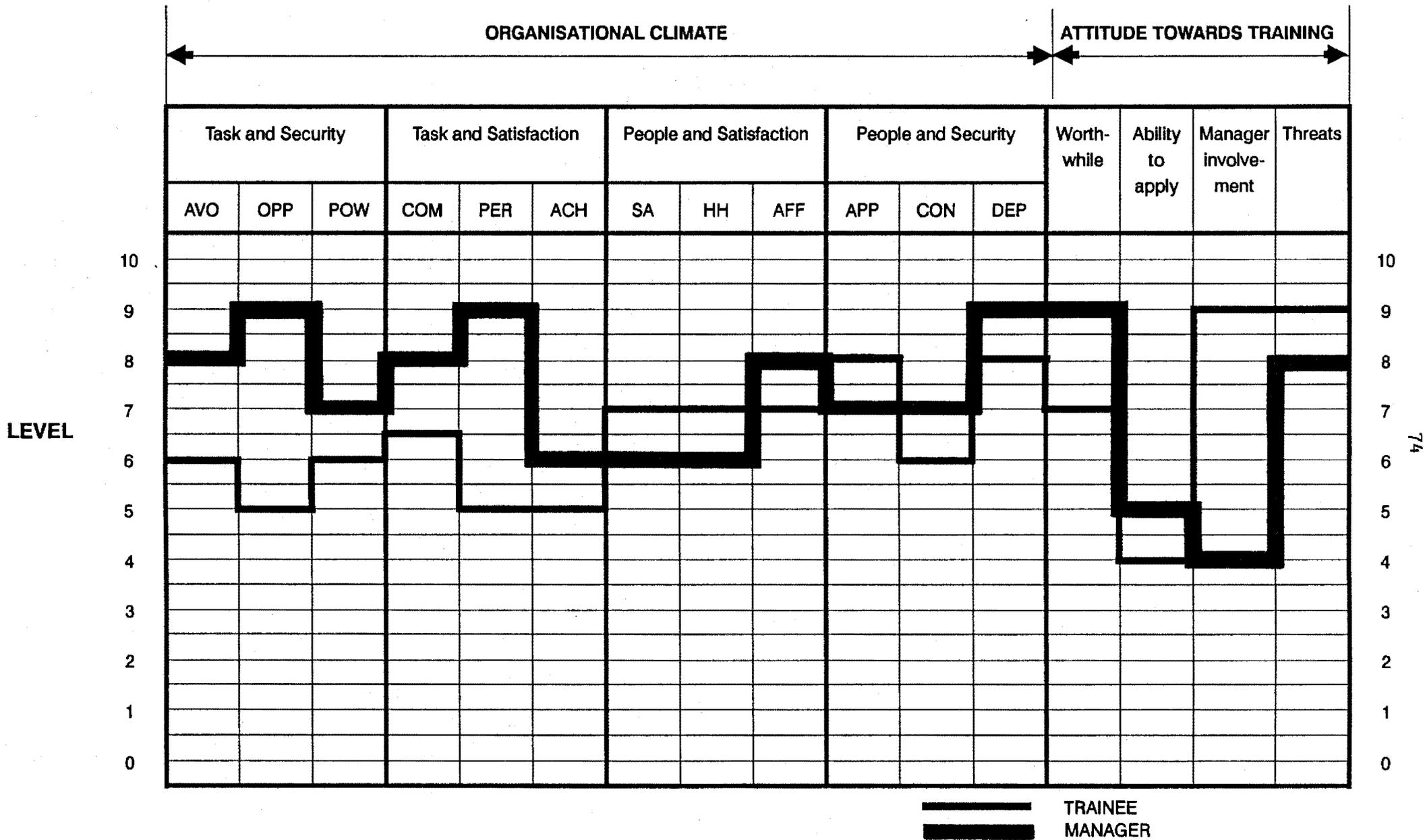


Figure 5.1 Graph depicting the typical different responses of the manager and the trainee to the questionnaire used in the pre- and post-testing phase of the experiment

psychotherapeutic treatment.

Thirdly, the graphical presentations of the responses of the members of the diads highlighted any communication problems that existed between manager and supervisor (trainee). Differences in perceptions of organizational climate between manager and supervisor were indicative of possible mismatching of value systems and goals. If these collided with the organizational culture set by top management, then any training course content would be futile. These problems were addressed in the interview. The guidelines on effective counselling proposed by Brammer and Shostrom (1977) and Ivey and Simek-Downing (1980) were implemented. First was the accurate definition of the problem to the triad's satisfaction. Then followed a brainstorming session aimed at generating as many solutions to the problem as possible. From this the triad selected what was considered the best solution and a realistic objective was then formulated. Finally an action plan was compiled so as to attain the solution to the problem. This part of the treatment process was enjoyed by all the participating diads because they appreciated the interest, facilitation and guidance of a human resources consultant.

Up to this point, the treatment process appeared to be effective and promising of meaningful results. Other interacting factors, most of which were beyond the control of the investigator proved the contrary. Yet they demonstrated the salience of the variables discussed in chapter two and deemed to influence the transfer of training. These factors caused the abandonment of the post-test phase and eventually the rest of the experiment. This is why no biographical data of the subjects is available. First, it is essential to examine the factors which caused failure of the first experiment as they helped to determine the design of the second investigation.

The first problem arose in that there had to be a suitable period of time between the end of the training course and the pre-test

in order to eliminate the effect of training course euphoria. There was a loss of one or more subjects from the experimental and control groups. Whole sampling units had to be precluded from further investigation so as to insure against an uneven number of subjects in the control and experimental groups. Further mortality was experienced during the three month period between the pre-test and the treatment phase, and between the treatment phase and the post-test. These periods were considered necessary to counter any effects of the pre-test on the method of treatment and any interaction between the pre-test and the post-test (Campbell & Stanley, 1963; Goldstein, 1978; Kane, 1976; Neale & Liebert, 1986).

The second problem in this specific study was that the sampling units were far apart. Such a spread across the country is generally recommended for the purpose of enhancing external validity by using a sample more representative of the general population. In practise this caused problems in that the investigator was not familiar with the subjects, their environment and their peculiar situations.

Third, the criteria surrounding the use of the critical incident technique proved the diaries to be inadequate. Most of Flanagan's criteria could not be met.

The use of diaries seemed to be repugnant to the managers - they were hesitant in keeping a "black book" which surreptitiously recorded the behaviour of the trainee. Most managers later admitted to fear of being found out - the consequences would have spoilt the delicate positive climate prevailing in their diad. Those who did want to maintain diaries were not always in close proximity to secure enduring observation.

Another failure in meeting Flanagan's criteria was the perception of what constituted a critical incident of behaviour. All managers had been through the training courses and had been vetted on what types of trainee behaviour to record. The

contents of those diaries that were maintained revealed that the managers did not always understand what a critical incident of behaviour was in the context of the training courses. Most were unable to realistically attach a positive or negative value (in terms of predetermined goals) to the incidents. Further, the managers were loathe to log negative incidents of behaviour incongruent with training course content.

The final problem in meeting Flanagan's criteria was that only one independent observer could be used to record the critical incidents of behaviour pertaining to each trainee. Only the managers' observations were available.

A last cause of failure in the use of diaries was not apparent in previous research (Bird, 1969; Byham, Adams & Kiggins, 1976; Flanagan, 1954; Kruger & May, 1985; Stewart, 1965; Swierczek & Carmichael, 1985). When were the managers expected to log the critical incidents of behaviour? To write them up as and when such incidents occurred would have detracted from the unobtrusive component of the pre-test as it would have to be done in the presence of the trainee. This would also not have allowed the manager sufficient time to accurately analyze the content of the critical incident against the predetermined standards set to evaluate if transfer was occurring. An alternative would be logging at the end of each day (or even each week). Factors detracting from this method were the lack of remembering to do so, time and interest. Encompassed here were factors which interfered with the process, i.e., lack of motivation, RTC, incorrect attitude, clash of interests with the organizational culture and type of climate. These problems seriously compromised the raw data that were supposed to exhibit critical incidents of behaviour matching the goal of the pre-test measuring instrument. The attitude questionnaire also revealed where improvement was necessary.

The problems coupled to the questionnaires' application in the first study will be specified so as to justify the improvements

in the second study. The first problem arose when the administration of the questionnaire was supposed to occur at the start of the logging of critical incidents of behaviour. Some were not done at this juncture in time, being administered instead at various intervals during the pre-test period, at the end of this period and a few even during the treatment process. This was because some of the managers did not follow agreed upon instructions and the researcher was not able to supervise measurement. This was unacceptable, as administrations should have been performed within approximately two weeks of each other in order to eliminate the effects of changes in attitudes, organizational culture and climate during the measuring period.

Another problem was that the questionnaire was presented to the subjects by their managers and not by a neutral person. The use of the manager as a postman could have caused some anxiety for the respondents when they knew that their responses were subject to scrutiny by someone important to their career. If a subject's organizational climate or relationship with the manager was negative his responses would not have been a true reflection of his attitude.

The last problem was that many respondents failed to complete the questionnaire. Such failure was reflected by them not answering all the items, not responding to either of the choices available or not returning the questionnaire. Some responses included extraneous political, facetious or disgusting remarks. This was presumably an indication of the effect of variables such as organizational climate, attitude, RTC and interpersonal relationship in the transfer of training. These respondents were part of the loss of thirty eight sampling units.

The pre-test phase was followed by the treatment process part of the experiment. Here again factors beyond the control of the researcher were instrumental in invalidating the experiment's results.

The most influential factors were the distance between the investigator (counsellor) and the diad, and the nature of the problems. Some of the problems (Alcoholism, marital problems and personality disturbances) required ongoing therapy which was not possible due to the distance involved. Telephonic contact was maintained with the diad but this was not sufficient. Use of the local human resources consultant was attempted but this too was not successful. Referrals to local specialist organizations (Alcoholics Anonymous, Elim, FAMSA, etc) failed due to lack of commitment by the members of the diad. Most were afraid that these measures would be recorded and negatively effect their careers even though they were constantly assured of the opposite.

Another factor was Transnet's "package". This was an offer by Transnet to those employees who wished to resign gracefully without loss of all service benefits. This afforded Transnet the opportunity of paring the unnecessarily large workforce that included deadwood, demotivated and disloyal employees. Of the thousands who used the deal, some were subjects of the experiment. This study was finally left with only twenty one sampling units. Effectiveness of the treatment was further decreased by politically motivated strikes and the change in status of the SA Transport Services to Transnet. There was a change in organizational culture that affected the climate within the diads - a problem was the spread of negative rumours even though top management went to great lengths to quickly communicate factual information to the lowest levels of the organization's hierarchy. These factors caused the abandonment of the post-test phase and eventually the rest of the first experiment. They also partly determined the design of the second investigation.

THE SECOND INVESTIGATION

The factors that caused the failure of the first experiment guided the researcher to an improved investigation. Aspects to be considered, similar to the first investigation, include the subjects and sampling technique, the experimental design, the

treatment, and the pre- and post-test, including the measuring instruments.

The subjects and sampling technique

Sampling was similar to the method used in the first investigation except that the subjects were selected from the Pretoria-Witwatersrand-Vereeniging region of the Transvaal. The target population was all persons employed by Spoornet in this region who had attended the two managerial training courses. The biographical data and characteristics of the subjects were similar to those of the first experiment and were considered to be representative of the population, ensuring that experimental results could be generalized to a wide variety of other subjects. Training course coordinators who kept records of the managers and supervisors that had attended the training courses, provided the names of the subjects. Ages ranged from 25 to 58 years ($M = 37$; $S = 7$) and the period of service with Spoornet ranged from 5 to 38 years ($M = 20$; $S = 7$).

The experimental design

The experimental design used, combined the advantages of the post-test only design and that of the classic design depicted in Figure 3.2. Further, it avoided the impractical rigour associated with the use of the Solomon four-group design in the first investigation. The design is unusual in that the post-test of the managerial training course is also the pre-test for evaluating the transfer of training in the work environment.

One advantage of using the post-test of the training course as the experimental pre-test is that at the training course post-test the researcher did not know which of the trainees would be selected as the sample in this study. Another advantage is less interaction between the experimental pre-test and treatment, or between experimental pre-test and experimental post-test, partly because the subjects were unaware that they were being pre-tested for the purposes of the investigation.

As mentioned before, the listing of the names of the subjects by the coordinators was suspected to be non-random. To ensure the random allocation of the subjects to the experimental and control groups of the experimental design the following procedure was used. The two trainees of each sampling unit (working under the same manager) were labelled T1 and T2. A computer programme was written to simulate the flipping of a coin and this randomized the order of the labels in each of the sets. For example, the first four sets were as follows :

S1 = [T2; T1]
 S2 = [T2; T1]
 S3 = [T1; T2]
 S4 = [T2; T1]

The names of the pairs of subjects were then allocated to the sets of labels so that, for example :

S1 = [Mr White; Mr Swart]
 S2 = [Mr de Bruin; Mr Green]

A similar computer programme was then used to randomize the order of the experimental and control units. The first two units were as follows :

U1 = [C; E]
 U2 = [E; C]

Combining the random allocation of subjects within the sets, S, with the random allocation of the groups of the experimental design, U, allowed for the random allocation of subjects to the groups. The allocation of subjects to groups, using the aforementioned list of names was then as follows :

GROUP OF SUBJECTS	PRE-TEST	TREATMENT	POST-TEST
Mr White - C	Yes	No	Yes
Mr Swart - E	Yes	Yes	Yes
Mr de Bruin - E	Yes	Yes	Yes
Mr Green - C	Yes	No	Yes

In this manner it was ensured that the allocation of subjects to the experimental groups was random and devoid of any influence by the researcher, managers and coordinators.

Experimental mortality remained a problem. There was a loss of 27 units during this second investigation. Eventually, the investigation was completed with thirty two intact experimental units that survived the processes of the pre-test, the treatment and post-test phases. Starting with the pre-test, each of these phases and the measuring instruments will now be discussed.

The pre-test phase

The pre-test phase comprised two components, one extending over several years and the other over several months. The first component, the training course post-test will be detailed first - it extended over several years because the managerial training courses were conducted over the period from 1985 to 1991.

The pre-test in the evaluation of transfer was the training course post-test, as detailed in chapter four which described the contents of the managerial training courses. An important fact is that the pre-test used a realistic role-playing situation. Such situations were not artificial as they involved typical problems that the supervisors could expect to encounter in their job environment.

However, the safe environment of the training course did not allow the training course post-test to measure the effect of some of the variables expected to affect transfer in the work environment. This determined the inclusion of another measuring device, the questionnaire which was the second component of the

pre-test, and was the same as that used in the first investigation.

The treatment process

The treatment process was based on the trainer's observation of the following sequence of events, considered detrimental to the transfer of training :

- (a) the majority of managers complained that there was no apparent behaviour change by the trainees after the training course,
- (b) most trainees and their managers were allowing events to control them instead of vice-versa,
- (c) trainees lacked motivation,
- (d) there was animosity and distrust expressed by the trainees towards management and
- (e) insecurity and uncertainty was rife amongst the majority of the trainees.

So despite the favourable reactions of the trainees to the contents of the managerial training courses and the evidence of acceptable resultant behaviour change, it was obvious that the environment was detracting from the training course's influence. Some intervening, corrective action had to be taken. Hence the vision of tailoring the contents of the training course to each diad's job environment, and the thought that each diad had to be treated according to their particular problems as diagnosed by the trainer (Spector, 1958). Such treatment consisted of a workshop, and if diagnosed as necessary, individual or group counselling or therapy.

The workshop was of one day's duration. It was aimed at determining where, how and why the diad was experiencing

difficulty in applying the contents of the training courses to the job environment. This included a discussion of common problems possibly existing between, and within the diads and a diagnosis of deeper underlying problems affecting individuals and diads. Another goal was to ascertain if the aims of the training courses were still compatible with the rapidly changing organizational culture. The trainees and managers were told that the workshop was a follow-up to the managerial training courses. No pertinent information was withheld. Subjects were completely informed of the purpose of the treatment process and no promises or extraordinary assurances were given. Finally, the dignity of all participants was maintained.

The workshop began with a preview of its content and its aims. This was followed by an overview of the two managerial training courses discussed in chapter four. Then came a resumé of the methods of effectively handling conflict situations and the process of management. After the presentation of suitable videos to reinforce the application of these methods, a long discussion was allowed in which the diads could air their views and relate problems they had experienced in the work environment after the training course.

The overview, resumé and video presentation served to jog the memory of forgotten knowledge and skills acquired in the training courses. Also, a frame of reference and the importance of training course content was established so that the diads were able to relate the contents of the training courses to their problems in the job.

The second event, the open discussion, was deemed the heart of the workshop. At this stage, enthusiasm was high with minimal inhibition in expressions of attitude and emotion (anger, distrust, disappointment, RTC, etc.). Here evidence was seen of some causes of the transfer problem and of the peculiar problems of each diad. The researcher, in the role of facilitator, trainer and therapist encouraged and stimulated the proceedings,

maintaining structure and direction in order to arrive at the goals of the workshop. Some definite pathological disturbances were evident - these were not entirely the fault of the organization but were specific to the person. They included substance dependency, family problems, psychosomatic disturbances and low self-esteem.

The workshop was concluded with a summary of the factors that were prevalent in affecting transfer as highlighted in the discussion, and with a video. The message contained in the video was of a positive nature. Its intention was to encourage the trainees to accept change as a challenge, impart correct attitudes and to allow them to realise that they were solely responsible for their behaviour. A parting message was that the trainer was always available if help was needed on a confidential basis. This led nicely into the second part of the treatment process whenever such was considered necessary.

The second part of the treatment process involved the application of psychotherapy (under the supervision of a registered psychologist) with some of the trainees if their disturbances were considered to hinder the transfer of training. These problems required the use of various forms of psychotherapy in order to return trainees to a state of acceptable functioning. No single form of psychotherapy was used - each situation and individual directed the approach that was adopted and sometimes a combination of approaches was used. The contents of the forms of psychotherapy that were used will be briefly presented so that their usefulness in counteracting the influence of the variables negatively affecting transfer can be illustrated.

Trait and Factor was an important form of therapy used because it considers the effects of situational variables (the environment) on the trainee during the transfer process. Accredited to Parsons (1909) this form of therapy was useful when trainees had adopted unrealistic career aspirations as a result of the training courses. Some expected a quick promotion and when this

was not forthcoming, they lost all interest in what they had acquired from training. Some of them became demotivated, disillusioned and even aggressive in attitude. Compounding this was the rapidly changing environment in the guise of the "New SA" and a new corporate identity with job evaluations, golden handshakes and equal opportunity programmes.

In order to enhance transfer of training the therapist had to consider aspects such as the type of relationship in the diad, RTC, and the source of demotivation. In general, it was the organizational climate (interpersonal relationships) and RTC that had to be addressed. This often necessitated impromptu, informal visits by the therapist to the trainee's job environment at opportune moments. This included a degree of unobtrusiveness and trainees and managers were often unaware that they were receiving treatment. Sometimes informal action plans and objectives with completion dates were established - one example involved extensive career planning discussions in the triad, which strengthened the motivation on the part of both trainee and manager.

Reality therapy embraces the fundamental tenet that generally, one is solely responsible for one's own behaviour. Glasser (1965) introduced Reality therapy on the premise that it was applicable to individuals and groups with behavioural and emotional problems because they were unsuccessful in attaining identity and necessary goals. Two needs that were not being fulfilled were the need to love and be loved, and the need to be useful and so acquire a sense of identity that allows one to be distinct. This type of therapy focuses on present behaviour rather than on the past or the future.

The researcher facilitated commitment to behaviour change (so as to gain transfer) with the use of action plans, and an agreement by the diad to the completion of a set of time bound tasks in order to reach a common goal. Reality therapy proved most useful when clients did not know how to help themselves. The trainer

in the role of counsellor, then had to convince the diad that irrational behaviour, incongruent with the content of the managerial training courses, was easily supplanted by useful alternatives. Reality therapy was useful in combating the effects of a poor organizational climate, demotivation and a lack of mentoring in the transfer process.

Rational - emotive therapy (RET), devised by Ellis (1958) was useful in correcting incongruent attitudes and RTC in the diad, because RET concentrates on the feelings and beliefs of individuals. Similar to Reality therapy, RET analyzes the trainee's problems in the here and now and uses past hurtful experiences minimally.

Predominant to the theory underlying RET is the A-B-C concept of disturbance in a persons' behaviour depicted in Figure 5.2. If a person has an emotional reaction at point C (the Consequence) after some activating event at point A, then it is not A that causes C. Rather, it is the belief system at point B which the person holds about A which causes C. Ellis proposed that if one's belief system about A is irrational, then C is going to be incongruent to the situation. RET was used to confront the irrational beliefs and value systems of the diads (Spector, 1958) which arose out of the rumours that were rife in the rapidly changing job environment.

This second phase of the treatment process was concluded once the researcher felt that the trainees and diads had reached an acceptable stage of functioning that would allow transfer of training to occur. The whole phase was spread across a period of nine months. The post-test phase of the experiment was accomplished at least three months after the last session of therapy, so as to obviate any effects of euphoria resulting from the treatment upon the post-testing process.

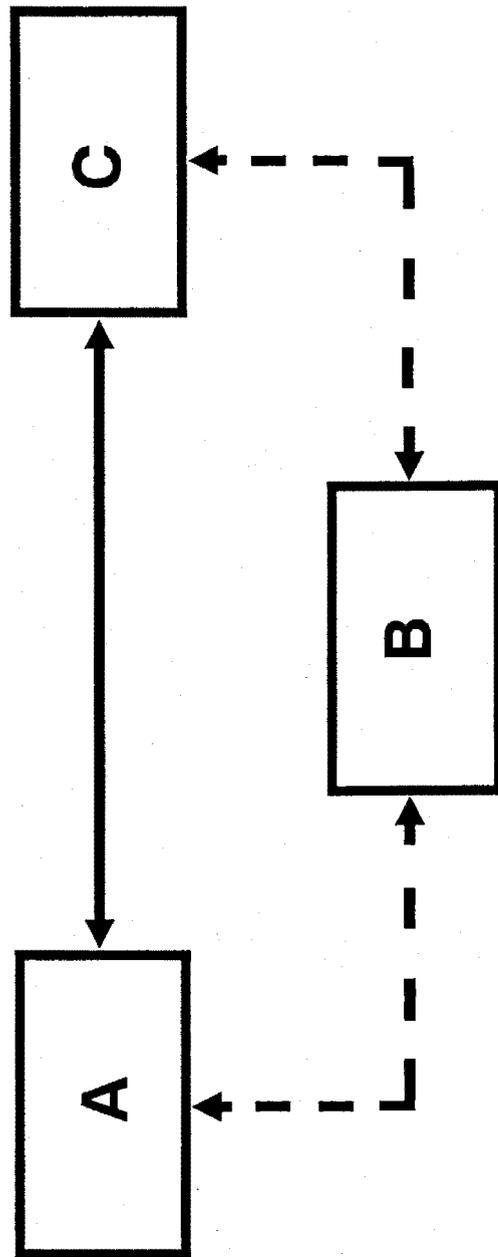


Figure 5.2 The influence of the belief system (B) about an activating event (A) upon one's behaviour (C), according to Ellis (1976).

The post-test

The diary method of recording critical incidents of behaviour in the transfer process proved to be unsuited to this particular research. This was proved by the initial investigation and an alternative approach of unobtrusive measurement under realistic conditions had to be found. The post-test section of the second investigation will illustrate how this was accomplished. Use was made of an interview as part of a role-playing situation and the questionnaire of the pre-test.

The interview was a role-playing situation involving the manager and supervisor (trainee). The artificial nature of a role-play situation was eliminated by non-deceptive means that were beneficial to all concerned (Kelman, 1967). This was accomplished by the manager confronting the supervisor with an actual, serious job-related problem which had to be resolved during the interview. The supervisors were not forewarned about the confrontation. The managers were forewarned that they had to confront the supervisors, about three to five days before the interview.

At the start of the interview the participants were told that they had to resolve the problem. Interviews lasted between twenty and forty minutes and all participants were able to find solutions to their problems. In most interviews, the supervisors were unaware of the nature of the problem or that it even existed. Those that were aware were relieved at its mention and were eager to discuss it through to a solution. The nature and depth of the problems varied across a broad spectrum and included those of interpersonal skills, family and marital situations, substance abuse, budgeting or problems of a technical nature.

The role-playing situation was used to assess the differences between the experimental and control groups in terms of interpersonal and managerial skills, after the intervention to improve these skills in the experimental group only. Another aspect looked at was the difference between the two groups on six of the variables thought to effect the transfer of managerial training.

The following forms of behaviour were evaluated during the role play:

- a) Supportive behaviour (giving help, encouraging and motivating).
- b) Accommodative behaviour that opened opportunities for discussion, demonstrated interest and understanding, or allowed opinions and suggestions to be given.
- c) Directive behaviour (giving opinions, suggestions and clarity, asking for clarity, summarizing and setting dates for feedback or the completion of tasks).
- d) Tenacity in attaining goals, no matter what the circumstances.
- e) Initiative (the willingness to sponsor original ideas and get things started, or originating ideas without the help of others).
- f) Flexibility (acknowledging the worth of other persons' ideas and actions).
- g) Judgement in deriving logical and sound conclusions in reaching goals.
- h) Decisiveness (without hesitation adopting a decision and accepting responsibility for it).
- i) Utilization and development of people to attain goals, allowing exposure for the less experienced.
- j) Reasoning ability (spontaneously using logical arguments in reaching useful conclusions).
- k) Planning (setting goals, forecasting, estimating and action sequencing).
- l) Organizing (the ordering and sequencing of people and the environment in attempting to attain goals).
- m) Task-structuring (giving important others the necessary, complete guidelines on how to accomplish a task).
- n) Empathy (putting oneself in the other person's shoes).
- o) Analytical ability (asking penetrating questions, weighing the odds, and using logic to arrive at facts).

These behaviours are acknowledged by Transnet as important for

a manager at a senior position and necessary to attain the organization's goals. All management and supervisory skills at Transnet are measured against these specific requirements.

During the role-playing situation the observers also assessed six of the seven variables (all except motivation) identified in chapter 2 as important to the transfer of training:

- a) Diad interaction was evaluated as being positive if manager and supervisors were honest with each other, expressed empathy and respected each other; negative if the opposite.
- b) Attitude toward the organization was evaluated as positive if the belief system, feelings and evaluations of the trainee solving the problem were congruent with the values of the organization (Spector, 1958).
- c) RTC was regarded as being present if the role-playing was inflexible, non-cooperative and not receptive to good suggestions.
- d) Mentoring was rated as being present if supervisors volunteered to assist important others in solving the presented problem.
- e) Organizational climate was evaluated as positive whenever the trainee actively tried to initiate and sustain good relations with important others, i.e., to maintain a healthy System C (Riggs, 1978).
- f) Organizational culture was seen as positive whenever the trainees declared the necessity of solving problems within laid down policy, shared respect for policy and declared a reluctance to deviate from policy without good reason.

At least two trained observers recorded everything said and done by the manager and the supervisor as the problem solving interview progressed. This was necessary to ensure objective reporting of events according to the criteria of Flanagan (1954). Such observers included the researcher, human resources consultants, technical and line personnel. All sat apart from the

interview participants so as to not disturb or detract from proceedings, but still able to record all proceedings.

At the end of each interview all participants were told the reason and true nature of the interview - this was in fulfilment of Kelman's (1967) guidelines on eliminating negative reaction to deception. Accordingly, they were then given feedback about the positive behavioural and managerial qualities they had revealed during the interview. All participants, without exception, confirmed that the situations were not artificial - all were happy with the events. Most expressed gratitude.

All were asked to provide specific biographical data so as to allow the researcher to check that the sample was typical of the general population. Then the questionnaire measuring attitude about managerial training and organizational climate was presented to both members of the diad. This was necessary in order to determine if there had been a shift in attitudes and perceptions between the pre-test and the post-test as a result of the treatment process. The post-test concluded with the researcher expressing his availability if further help was necessary, his thanks for the diad's cooperation and encouragement in their environment.

The researcher and another human resources specialist independently analyzed the responses of the trainees during the role-play situation. Each response was analyzed as a critical incident of behaviour by placing it into one of the aforementioned categories of interpersonal and managerial skills. Thus each response by a trainee was a piece of raw data, and each was tallied up within the different categories of behaviour (the subscales) and ultimately the mean scores of the experimentals and controls obtained. Further, an informal discussion between the researcher and the second human resources specialist ensured that each critical incident of behaviour was correctly categorized and that an agreement on the tallies within the various categories was obtained.

Post-testing was spread across five months. This was due to the non-availability of participants and observers caused by sickness, examinations, leave, pressure of work, pathological problems, etc. Finally, the dust settled and the researcher was left with the task of analyzing what had been measured. This will be described in the next chapter.

CHAPTER SIX

THE RESULTS OF THE INVESTIGATION

INTRODUCTION

This chapter contains a description of the results of the investigation into the effective transfer of managerial training to the work environment described in the previous chapter. Only the results of the second experiment will be considered. These are based on the two main measuring devices used during the pre- and post-testing phases - the questionnaire for assessing attitudes and organizational climates, and the role-playing situations. First, the results of the pre-test phase will be looked at, followed by those of the post-test, and then the chapter will conclude with a comparison of pre- and post-testing phases.

THE PRE-TEST PHASE

The role-playing situation of the pre-test phase will be looked at first, and then the results of the questionnaire.

The role-playing situation

The role-playing situation forming the pre-test of the investigation was the post-test of the managerial training courses discussed in chapter four.

Some of the subjects attended the managerial training courses before this investigation was conceived and the records of their post-test results were not available. The results of all persons attending recent courses were as follows (scored on a scale of 1 - 6) : $N = 47$; $M = 5,51$; $S = 0,51$. Of these persons, 26 were included in the sampling units of the investigation: $M = 5,62$; $S = 0,50$. A comparison of these statistics reveals a similarity which proves that the training course post-test scores of the subjects were typical of trainee' scores in general. Furthermore, all subjects received a score at the very top end of the scale,

namely 5 or 6, and there was consequently hardly any difference between the subjects of the experimental and the control groups.

The questionnaire

The questionnaire on attitudes toward managerial training and perception of the organizational climate was not part of the post-test of the managerial training courses because its need had not been realised at that time. It was applied later, before the intervention.

The mean scores, standard deviations, and the calculated t-values of the differences in means between the experimental and control groups are depicted in Table 6.1. On attitude towards managerial training it was expected that all trainees would score high on the "Worthwhile", "Ability" and "Manager" subscales, and score low on the "Threats" subscale. This would have meant that the trainees found managerial training meaningful and devoid of threats. It was expected that there would be no significant differences between the two groups due to the random allocation of subjects. However, with regard to attitudes towards managerial training using a two-tailed statistical test, the mean scores of the experimentals were significantly less than those of the controls on the two subscales, "Worthwhile" and "Ability".

With regard to perceptions of the types of organizational climate that the trainees believed they worked in, the mean scores of the experimentals were significantly different from those of the controls on eight subscales. It was desired that high mean scores would be reflected by the trainees on the "Humanistic-helpful", "Affiliative", "Conventional", "Power", "Perfectionist", "Achievement" and "Self-actualizing" subscales. Low mean scores were preferred on the "Dependent", "Avoidance", "Oppositional", and "Competitive" subscales. Such would indicate that trainee's perceptions of the organizational climate they functioned in was acceptable to them. On the "Humanistic-helpful", "Affiliative", "Perfectionist", "Achievement" and "Self-actualization" subscales the mean scores of the experimen-

TABLE 6.1 Mean scores on the 16 subscales of the questionnaire for the experimental and control groups on the pre-test (N = 32 for each).

SUBSCALES	EXPERIMENTAL		CONTROL		t-VALUE
	M	S	M	S	
Attitude					
Worthwhile	7,75	1,51	8,50	0,89	-2,42*
Ability	6,30	1,40	7,06	1,22	-2,32*
Manager	6,28	1,33	6,50	1,11	-0,72
Threats	4,44	1,50	5,00	1,55	-1,47
Climates					
Humanistic-Helpful	5,97	1,69	8,48	1,12	-7,00*
Affiliative	6,28	1,58	8,40	1,22	-6,01*
Approval	5,00	1,14	5,30	1,36	-0,96
Conventional	7,25	1,40	6,97	1,20	0,86
Dependent	6,16	1,37	6,13	1,47	0,08
Avoidance	5,09	1,37	4,56	1,48	1,49
Oppositional	4,66	1,33	3,41	1,30	3,80*
Power	5,47	1,30	4,81	1,28	2,05*
Competitive	5,00	1,39	4,13	1,45	2,48*
Perfectionist	5,47	1,49	6,25	1,22	-2,29*
Achievement	6,72	1,63	8,75	1,09	-5,86*
Self-Actualizing	6,10	1,72	8,63	1,33	-6,58*

*p < 0,05

tals were significantly less than those of the controls, but significantly greater than those of the controls on the "Oppositional", "Power" and the "Competitive" subscales. These significant results are unusual because of the random allocation of the subjects to the sampling units and no explanation can be offered. Somehow at that stage, they must have been "treated" in different manners of which the researcher is unaware.

The intercorrelation coefficients between the subscales measuring the attitudes of the trainees towards managerial training were calculated to reveal the degree of relationship between the four subscales. The responses of 76 trainees, 64 of whom were the subjects of the investigation, were used to acquire these coefficients, before the treatment phase of the investigation began. The results appear in Table 6.2. Although all the coefficients are positive and significantly above zero, they are fairly low. This indicates that there is only a small amount of shared variance between any pair of subscales, and that the subscales address fairly different components of the subjects' attitude towards managerial training.

TABLE 6.2 The intercorrelation coefficients between the four subscales measuring attitudes towards managerial training (N = 76).

	Worthwhile	Ability	Manager	Threats
Worthwhile	-	0,45	0,31	0,40
Ability		-	0,31	0,33
Manager			-	0,22
Threats				-

THE POST-TEST PHASE

This section includes the results of the role-playing situation and the questionnaire after the intervention.

The role-playing situation

The role-playing situation was used to assess the differences between the experimental and control groups in terms of interpersonal and managerial skills after the intervention to improve these skills in the experimental group only. Another aspect looked at was the difference between the two groups on six of the variables thought to affect the transfer of managerial training. Table 6.3 depicts the mean scores of the experimental and control groups on the 15 assessments of interpersonal and managerial skills incorporated in the role playing situation. Ideally the trainee's mean scores should have been high on all subscales except the "Directive" and "Reasoning" subscales - low mean scores were sought on these. Good interpersonal and managerial skills were then being exercised by the trainees. In all instances, the scores of the experimental group were superior to those of the control group, as would be expected if the intervention had been successful. Furthermore, all but one of the differences are statistically significant.

The two-tailed test produced negative t-values for the experimentals compared to the controls on the "Directive" and "Reasoning" subscales. This conformed to expectations.

TABLE 6.3 Mean scores on the 21 assessments made during the post-test role-playing situation for the experimental and control groups (N = 32 for each).

ASSESSMENT	EXPERIMENTAL		CONTROL		t-VALUE
	M	S	M	S	
Interpersonal					
Supportive	6,97	1,84	2,56	1,45	10,65*
Accommodative	9,69	2,01	3,66	1,62	13,21*
Directive	3,22	2,54	16,63	3,14	-18,78*
Managerial					
Initiative	6,16	1,64	2,19	1,39	10,45*
Tenacity	4,88	1,68	0,91	1,23	10,79*
Analytical	10,25	2,35	10,03	2,62	0,35
Judgement	6,50	1,87	2,09	1,89	9,46*
Flexibility	7,47	1,75	3,06	1,63	10,43*
Utilization	4,25	1,57	1,81	1,48	6,40*
Decisiveness	6,38	1,59	3,03	1,85	7,77*
Tasking	5,78	1,94	4,56	2,01	2,47*
Empathy	5,19	1,56	1,31	1,34	10,67*
Reasoning	9,19	3,22	10,97	2,66	-2,41*
Planning	4,28	1,36	0,78	1,20	10,92*
Organizing	5,53	1,71	0,91	1,01	13,16*
Variables					
Diad-Interaction	9,41	1,53	5,00	1,39	12,07*
Attitude	8,57	1,49	2,50	1,34	17,13*
RTC	6,53	1,36	2,03	1,32	13,43*
Mentoring	5,34	1,46	2,28	1,24	9,04*
Climate	7,94	1,24	2,78	1,44	15,36*
Culture	4,31	1,29	0,50	0,97	13,35*

*p< 0,05

The last six lines of Table 6.3 show the marked improvement of the experimentals against the controls on six of the variables considered in chapter 2 as influential to the transfer of managerial training. These variables were specifically addressed during the treatment phase by the trainer and by manipulating them either individually or collectively (depending on the individual or the situation), the interpersonal and managerial skills of the trainees (and their managers) were enhanced.

The questionnaire

The use of the questionnaire in the post-test phase of this investigation was aimed at comparing the attitudes toward managerial training and perceptions of the organizational climate of the experimental and control groups after the experimental intervention, and of the experimental and control groups separately on the pre- and post-test. The mean scores of the experimental and control groups, which are necessary to ascertain the effect of the treatment process, are given in Table 6.4.

All but one of the mean attitude towards managerial training scores are significantly higher for the experimentals than for the controls. The exception was the "Threat" subscale. This verifies that the experimentals in comparison to the controls discerned managerial training as more meaningful and wished for more involvement by their managers before and after training. The mean scores of the experimentals on seven of the subscales measuring perception of organizational climate were also significantly higher than those of the controls.

Meeting expectations were the significantly higher mean scores on the "Humanistic-helpful", "Power", "Affiliative" and "Self-actualizing" subscales and the lower mean scores on the "Approval", "Avoidance" and "Oppositional" subscales. This was an indication that the trainer's intervention had helped to improve the trainee's perceptions of the environment that they worked in.

Next a comparison was made between the mean questionnaire scores

TABLE 6.4 Mean scores on the 16 subscales of the questionnaire during the post-test, for the experimental and control groups (N = 32 for each).

SUBSCALE	EXPERIMENTAL		CONTROL		t-VALUE
	M	S	M	S	
Attitude					
Worthwhile	8,69	0,91	8,10	1,27	2,14*
Ability	7,47	1,18	6,47	1,07	3,55*
Manager	6,75	1,18	5,78	1,44	2,95*
Threats	4,19	1,53	4,34	1,39	-0,41
Climates					
Humanistic-Helpful	9,22	0,84	8,22	1,27	3,72*
Affiliative	9,57	0,79	8,16	1,29	5,27*
Approval	4,47	1,49	5,41	1,32	-2,67*
Conventional	7,16	1,17	7,38	1,25	-0,73
Dependent	6,66	1,35	6,60	1,38	0,18
Avoidance	3,30	1,40	4,56	1,51	-3,46*
Oppositional	2,97	1,11	3,73	1,30	-2,52*
Power	5,69	1,22	4,84	1,42	3,66*
Competitive	4,34	1,48	4,34	1,42	0
Perfectionist	6,40	1,40	6,00	1,41	1,14
Achievement	9,44	0,79	9,09	1,06	1,50
Self-Actualizing	9,31	0,91	8,50	1,39	2,76*

* $p < 0,05$

TABLE 6.5 Mean scores on the 16 subscales of the questionnaire during the pre- and post-test phase, for the experimental group (N = 32).

SUBSCALE	PRE-TEST		POST-TEST		t-VALUE
	M	S	M	S	
Attitudes					
Worthwhile	7,75	1,51	8,69	0,91	- 3,02*
Ability	6,30	1,40	7,47	1,18	- 3,61*
Manager	6,28	1,33	6,75	1,18	- 1,50
Threats	4,44	1,50	4,19	1,53	0,66
Climates					
Humanistic- Helpful	5,97	1,69	9,22	0,84	- 9,74*
Affiliative	6,28	1,58	9,57	0,79	-10,54*
Approval	5,00	1,14	4,47	1,49	1,60
Conventional	7,25	1,40	7,16	1,17	0,28
Dependent	6,16	1,37	6,66	1,35	- 1,47
Avoidance	5,09	1,37	3,30	1,40	5,17*
Oppositional	4,66	1,33	2,97	1,11	5,52*
Power	5,47	1,30	5,69	1,22	- 0,70
Competitive	5,00	1,39	4,34	1,48	1,84
Perfectionist	5,47	1,49	6,40	1,40	- 2,57*
Achievement	6,72	1,63	9,44	0,79	- 8,50*
Self- Actualizing	6,10	1,72	9,31	0,91	-12,06*

* p < 0,05

TABLE 6.6 Mean scores on the 16 subscales of the questionnaire during the pre- and post-test phase, for the control group (N = 32).

SUBSCALE	PRE-TEST		POST-TEST		t-VALUE
	M	S	M	S	
Attitudes					
Worthwhile	8,50	0,89	8,10	1,27	1,46
Ability	7,06	1,22	6,47	1,07	2,06*
Manager	6,50	1,11	5,78	1,44	2,24*
Threats	5,00	1,55	4,34	1,39	1,79*
Climates					
Humanistic-Helpful	8,48	1,12	8,22	1,27	0,87
Affiliative	8,40	1,22	8,16	1,29	0,76
Approval	5,30	1,36	5,41	1,32	-0,33
Conventional	6,97	1,20	7,38	1,25	-1,45
Dependent	6,13	1,47	6,60	1,38	-1,04
Avoidance	4,56	1,48	4,56	1,51	0
Oppositional	3,41	1,30	3,73	1,30	-0,98
Power	4,81	1,28	4,84	1,42	-0,09
Competitive	4,13	1,45	4,34	1,42	-0,59
Perfectionist	6,25	1,22	6,00	1,41	0,76
Achievement	8,75	1,09	9,09	1,06	-1,26
Self-Actualizing	8,63	1,33	8,50	1,39	0,38

* p < 0,05

obtained on the pre-test and post-test by the experimental group. This was necessary to establish whether the treatment process had an effect upon this group. The results are portrayed in Table 6.5.

The mean scores on two of the subscales, "Worthwhile" and "Ability" measuring attitude towards managerial training improved significantly. The same occurred with seven of the twelve subscales assessing perception of organizational climate, namely the "Humanistic-helpful", "Affiliative", "Avoidance", "Oppositional", "Perfectionist", "Achievement" and "Self-actualizing" subscales.

Finally, it was considered necessary to compare the differences between mean scores on the pre- and post-tests of the control group so as to check that, besides the preclusion of the treatment process, other factors (maturation, history, etc.) had not caused significant changes in attitude or perception of climate. The results are depicted in Table 6.6. Three subscales measuring attitudes towards managerial training showed a significant decline in mean scores between the pre-test and the post-test. These were the "Ability", "Manager" and "Threats" subscales. None of the perceptions of organizational climate changed significantly.

The interpretation of the results will be considered in the following chapter, together with the conclusions gleaned from the investigation and appropriate recommendations arising therefrom.

CHAPTER SEVEN
INTERPRETATION OF RESULTS AND RECOMMENDATIONS

Glancing back so as to gain perspective, the problem that motivated this research was to find a means of effectively transferring managerial training to the trainee's work environment. Unlike previous research, this study adopted a holistic approach and examined the effects of several variables considered important to the transfer problem. These variables included mentoring, interpersonal relationships, attitudes, resistance to change, motivation, and organizational culture and climate.

The failure of the initial investigation around the transfer problem indicated that these variables did have a part to play. The following factors contributed to this failure :

- a) there was no one to assist the trainee and the manager in adapting the contents of the managerial training course to the job. The trainer in the role of facilitator was geographically too far away even though frequent telephonic contact was maintained. The use of local human resources specialists was unsuccessful because of their workload and their disinterest in the project. These factors detracted from the effects of the treatment;

- b) relationships within the diad, and between members of the diad and the trainer (and management) were not always compatible, especially when there were problems within the diad. The trainee usually was reluctant to accept blame in these situations and perceived the researcher and manager as threats. Such blame also rested with the manager sometimes, and aggravating this was a distrust for the researcher. This was because the researcher was deemed as having hidden motives, was seen as a threat to the manager's power base or was perceived as being capable of revealing the manager's limitations;

- c) attitudes toward training were often negative, and marked resistance to change was experienced;
- d) motivation within the diad to ensure the successful transfer of managerial training was low because there was no immediate personal gain; the subjects were under the impression that their roles in the process was passive and that others had to "switch them on". There was consequently no commitment from within the diad.
- e) although the effects of organizational climate and culture were recognized as important to the transfer problem they could not be exploited. This was because of the negative influence of the other variables already mentioned.

Further individual and situational variables beyond the control of the researcher, contributed to the first investigation's failure. Some of these factors were the organizations' change in identity, the paring of personnel and the personal problems of the subjects. Another was the lack of sufficient reliable results to conclude the investigation with an appropriate post-test.

This failure demonstrated the importance of the very factors expected to be significant in the transfer problem and indicated how further research could be conducted. Taking cognizance of these factors the second experiment was successfully completed by employing a role-playing situation, instead of diaries to surreptitiously record the critical incidents of behaviour change arising out of the managerial training courses. It was essential that the measuring instruments used would be acceptable to the subjects as well as the researcher, and would meet ethical standards as well as the demands of scientific accuracy. The role-playing situation satisfied these requirements, especially when evaluated by at least two independent trained observers.

The role-play situation in particular proved that the treatment

had improved transfer. Unlike the use of the technique in previous research (chapter 3), these role-play situations were not artificial. They took the form of structured problem solving interviews. The real problems to be resolved were presented unexpectedly to the trainees, and the results obtained proved the value of suitable trainer intervention.

An eclectic approach was followed during the treatment. Activities ranged from mere retraining in managerial skills to intensive psychotherapy (for trainees and managers). Individual and situational factors, and the variables important to the transfer problem were considered in their cumulative, interactive whole.

Role-playing was also used in the form of homework assignments in the course of psychotherapy with seven of the experimentals. This was aimed at an appropriate attitude change by making the subjects realize that an alternative form of behaviour was pleasant (as discussed in chapter 2), and so eliminating problems that were affecting transfer in the work environment. Mentoring, initially by the trainer and then subtly assigned to the trainee's manager, was also used.

The use of participative goal setting and action planning allowed for the integration of the several variables important to the transfer of managerial training.

A particular attitude seen as preventing transfer was RTC. In all of the experimentals this problem had to be given attention. The advice of Epstein and Cook (1987) and Moerdyk and Fone (1987) was especially valuable here (see chapter two). Such advice was always an important portion of the treatment phase. Particularly bothersome was the "not invented here" syndrome in the guise of the subjects not trusting management, non-acceptance of the suggestions of "degreed" persons and a rejection of inexperienced graduate trainers as mentors.

A problem experienced during the analysis of the results was that the questionnaire of the pre-test revealed some significant differences between the mean scores of the experimentals and the controls on attitudes towards managerial training and their perceptions of the type of organizational climate that they professed to work in.

The pre-test attitudes towards managerial training were significantly less positive for the experimentals than for the controls on the two subscales "Worthwhile" and "Ability" (Table 6.1 refers). This means, for example, that the experimentals felt more strongly that they did not gain new knowledge and skills in the managerial training courses, that such training was not beneficial or essential, and that the expense incurred was not necessary. Further, the experimentals were less keen to apply the contents of the training courses to their jobs and did not want the trainer involved in the process. They felt there would be resistance from important others in attempting to do so.

The pre-test perceptions of the organizational climate being worked in also revealed significantly lower mean scores for the experimentals compared to the controls across five subscales. The experimentals felt, for example, that they were not being allowed to develop and were prevented from participating in decision making. In comparison to the controls, they sensed more flaws in interpersonal relationships. They experienced relatively less pride in their work and did not value persistence, hard work and perfectionism very highly. They had less enthusiasm in executing tasks and were less interested in setting realistic goals.

These pre-test differences between the experimentals and the controls on ten of the sixteen subscales were unexpected. Although sampling was not strictly random the two groups were matched on important criteria as explained in chapter four. Furthermore, the subjects were randomly assigned to the experimental units through a double-blind procedure on which the

researcher had no influence. Some unaccounted for influence was clearly present, but it is not clear what this was. In spite of this inequality between the two groups, however, the results of the experiment are still clear and useful.

The recommendations of Dinsdale (1988), Freedman, Sears and Carlsmith (1980), Hofmeyer and Maitland (1984, 1987) and Huysamen (1980) proved their worth in producing a suitable questionnaire. The dichotomous items allowed for easy interpretation and scoring. It is of course essential that the questionnaire is presented in the language most familiar to the respondents. It is further necessary that the researcher be available when the questionnaire is completed, to answer queries which might otherwise result in spoilt responses. This also eliminates the need for the presence of those others important to the trainees' career, which might contaminate responses.

Mortality amongst the subjects is one of the limitations of this and similar research that makes longterm studies very difficult. In the present research, mortality was caused by the time spans required between the training course and the intervention, and between the intervention and the post-test. Mortality also precluded the use of the Solomon four-group experimental design, which would have eliminated several threats to validity. But the methodology implemented adequately compensated.

The sample could be improved. Only one woman was included. About 85 % of the subjects spoke the same language and there were hardly any cultural differences. Still, the sample included a diversity of professions, job content, qualifications, ages and length of service so that the results are expected to apply also to other work environments. This is supported by the heterogenous nature of Spoornet, the environment within which the investigation was conducted.

The effect of the treatment on the experimentals during the role-play situation of the post-test was proved significant by the

results portrayed in Table 6.3. Each experimental and control falling under a common manager were evaluated on the same morning or afternoon by the same observers. Conditions and procedures were uniform so that the results could only be attributed to the influence of the treatment applied to the experimentals at least three months previously. Definite behaviour change in accordance with the contents of the managerial training courses had occurred. Unlike previous research, improved behaviour was being assessed and not just improved role-playing.

Table 6.3 also reflects the influence of the treatment in improving the managerial skills of the experimentals compared to the controls. The manipulation of the variables seen as influential to the transfer problem during the treatment phase, resulted in a significant affect amongst the experimentals notwithstanding that all the matched pairs of subjects were from the same job environment with inherently similar diad interactions, climate, culture and the influences of mentoring, RTC and attitude.

Significantly improved attitudes towards managerial training and perceptions of type of organizational climate being worked in were highlighted by the results depicted in Table 6.4. The use of the questionnaire indicates the convincing effect of the treatment in the form of contrasting mean scores achieved by the experimentals and controls on the post-test. This is further confirmed by the results displayed in Table 6.5 where there were significant differences in the mean scores of the experimentals between the pre- and post- tests as a result of the treatment. All doubt about the positive effect of the treatment is removed by the differences shown in Table 6.6 in mean scores between the controls. Deprivation of treatment did not allow any significant change in perceptions of type of organizational climate being worked in. The significant changes in attitudes to managerial training were negative.

Some concluding remarks. The treatment was effective in causing

appropriate behaviour change as a result of managerial training and affirmed the importance of several variables. These variables were also influential in preventing a longitudinal study and it is here that further research could possibly be necessary.

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OBSERVER REPORT FORM

CANDIDATE:		OBSERVER:	AVERAGE:
SUPPORTIVE BEHAVIOUR		BEHAVIOUR	
	GIVE RECOGNITION GIVE ENCOURAGEMENT		
	OFFER HELP		
ACCOMMODATING BEHAVIOUR	ASK FOR SUGGESTIONS ASK OPINIONS		
	SHOW INTEREST AND UNDERSTANDING		
	CREATE OPPORTUNITIES FOR DISCUSSION		
DIRECTIVE BEHAVIOUR	MAKE SUGGESTIONS GIVE OPINIONS		
	ASK FOR CLARIFICATION		
	GIVE CLARIFICATION SUMMARISE		
	SET A FOLLOW-UP DATE		

APPENDIX 2

VALUE SYSTEM OF TRANSNET

- HONESTY : This value refers to impeccable conduct in our work, towards colleagues, clients, trade unions and the public.
- CLIENT-CENTRED : Our future existence in the free market will depend on the quality of service rendered by each one of us and therefore on the satisfaction of our clients.
- SUPPORTIVE : Decisions must be taken at the lowest possible level with commensurate responsibility. We must therefore trust each other and encourage one another to take risks and to tolerate each other's mistakes.
- PEOPLE-CENTRED : Our most important asset, our employees, must financially and non-financially be treated in a dignified way within an environment where everyone can reach fulfilment and be proud.

MISSION OF TRANSNET

Transnet is a multimodal transport organisation specialising in the handling and transportation of goods and people in the Republic of South Africa and across our borders. In order to attain this main goal, we also render ancillary and supporting services that are cost competitive or of strategic importance to the main goal.

Transnet is a public company. We believe in the free-market system and consider profit as a measure of success in a competitive environment. We maintain high ethical norms at all times and acknowledge our responsibility towards the South African community.

The primary responsibility of Transnet is towards its clients. We endeavour to meet the requirements of our clients by providing a competitive service of high quality. Our goal is to render this service through a well-trained, motivated and happy personnel corps utilising our infrastructure and equipment to the optimum.

Transnet believes in decentralised management with effective control measures. We believe in the dignity of man and bind ourselves not to discriminate against anyone on the grounds of colour, race or creed. We aim at market-related service conditions and opportunities for all our employees in order that they may develop to their full potential.

APPENDIX 3

A QUESTIONNAIRE ON THE PERCEPTION OF ORGANIZATIONAL CLIMATE AND ATTITUDE TO MANAGERIAL TRAINING.

INSTRUCTIONS : The purpose of this questionnaire is to measure the effectiveness of managerial training courses. There are 160 questions. Please answer all the questions by placing a cross (X) through the response which you consider appropriate. If a particular question is not relevant, or only partly relevant to your particular situation, kindly answer as to how you would prefer to see yourself in that specific situation. There is no time limit to this questionnaire. Please do not sign the questionnaire as we wish to retain anonymity. Please be as honest as possible. Thank you for your co-operation.

EXAMPLE : Do you ever sleep?

~~YES~~

NO

WITHIN YOUR WORK ENVIRONMENT :

- | | | |
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| 1. Do you believe managerial training courses are worthwhile? | YES | NO |
| 2. Do you believe your supervisor will allow you to apply these new skills and knowledge in your specific job? | YES | NO |
| 3. Do you feel your supervisor should be involved in transferring your newly learned skills and knowledge of the managerial training course to your job? | YES | NO |
| 4. Did you feel any threats when attending a managerial training course? | YES | NO |
| 5. Is the development of people encouraged? | YES | NO |
| 6. Do people actively try to co-operate? | YES | NO |
| 7. Do people avoid conflict? | YES | NO |
| 8. Is it important to be reliable? | YES | NO |
| 9. Do people prefer to avoid decision making? | YES | NO |
| 10. Is the care of a problem left to someone else? | YES | NO |
| 11. Are people in authority critical? | YES | NO |
| 12. Do you feel you have to be tougher than others? | YES | NO |
| 13. Are you competing against others? | YES | NO |
| 14. Do you try to hide your emotions? | YES | NO |

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| 15. | Do you set your own standards and then pursue them? | YES | NO |
| 16. | Are you allowed to be creative? | YES | NO |
| 17. | Do you feel you have gained new skills and knowledge from the managerial training course? | YES | NO |
| 18. | Do you feel you would like to apply these new skills and knowledge back in your specific job? | YES | NO |
| 19. | Do you feel your supervisor will allow you to apply the newly learned skills and knowledge of the managerial training course to your job? | YES | NO |
| 20. | Do you believe there are reasons other than job enrichment and development behind your attending a managerial training course? | YES | NO |
| 21. | Are those in authority open to new ideas? | YES | NO |
| 22. | Do people genuinely care for others? | YES | NO |
| 23. | Do you try to make sure everyone likes you? | YES | NO |
| 24. | Do you feel you must follow the rules? | YES | NO |
| 25. | Do you worry about what might happen? | YES | NO |
| 26. | Is it best to play it safe? | YES | NO |
| 27. | Do those in authority blame someone if things go wrong? | YES | NO |
| 28. | Do you always have to stay on top of the situation? | YES | NO |
| 29. | Do you sometimes do something reckless? | YES | NO |
| 30. | Do you set goals for yourself that are higher than those of anyone else? | YES | NO |
| 31. | Do you take moderate risks? | YES | NO |
| 32. | Do you believe your ideas are discussed and accepted? | YES | NO |
| 33. | Do you feel pleased at the opportunity of attending a managerial training course? | YES | NO |
| 34. | Do you feel you need help in trying to apply these new skills and knowledge in your job? | YES | NO |

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| 35. | Do you feel your supervisor should attend the managerial training course? | YES | NO |
| 36. | Do you believe that not attending a managerial training course could prejudice your career? | YES | NO |
| 37. | Do people actively work at supporting each other? | YES | NO |
| 38. | Are people warm and good-natured? | YES | NO |
| 39. | Do you agree with whomever you think has the highest authority? | YES | NO |
| 40. | Do people avoid any moves that might make them look bad? | YES | NO |
| 41. | Do you do exactly as you are told to? | YES | NO |
| 42. | Do you avoid decisions unless they are necessary? | YES | NO |
| 43. | Do you feel that people in authority remain aloof? | YES | NO |
| 44. | Do people get revenge instead of getting angry? | YES | NO |
| 45. | Do people over-estimate their ability to handle new situations? | YES | NO |
| 46. | Do you always try harder? | YES | NO |
| 47. | Do you believe your effort can make a difference? | YES | NO |
| 48. | Do people have the freedom to try new methods? | YES | NO |
| 49. | Do you feel the expense involved in managerial training is warranted? | YES | NO |
| 50. | Do you feel the presenter of the managerial training course should intervene in helping you apply these new skills and knowledge in your specific job? | YES | NO |
| 51. | Do you feel your supervisor needs the managerial training course more than you? | YES | NO |
| 52. | Do you believe that your activities and participation during a managerial training course are reported to management? | YES | NO |

53.	Are people willing to teach others?	YES	NO
54.	Are people accepting of each other?	YES	NO
55.	Do people get upset but say nothing when their ideas are unacceptable?	YES	NO
56.	Are people expected to make a good impression?	YES	NO
57.	Do people do what is expected of them?	YES	NO
58.	Do people avoid taking chances?	YES	NO
59.	Do you feel people in authority are sarcastic?	YES	NO
60.	Do people get angry if they don't get their own way?	YES	NO
61.	Do you take risks only after careful consideration?	YES	NO
62.	Do you seek recognition through perfection?	YES	NO
63.	Are you allowed to attain your own goals?	YES	NO
64.	Are you able to strive for quality instead of quantity?	YES	NO
65.	Do you feel the money spent on managerial training should be used to enhance salaries?	YES	NO
66.	Do you believe there will be resistance from your fellow workers when applying these new skills and knowledge in your job?	YES	NO
67.	Do you feel your supervisor should attend the managerial training course before you?	YES	NO
68.	Do you believe that you have to "pass" the managerial training course or else there could be problems for you?	YES	NO
69.	Are people encouraged to think for themselves?	YES	NO
70.	Are people allowed to share their feelings?	YES	NO
71.	Do you try to be popular and place your own desires last?	YES	NO
72.	Do people cover up their mistakes?	YES	NO

73.	Do people ask others what they think is right before they do anything?	YES	NO
74.	Do people put concern for themselves first?	YES	NO
75.	Do people in authority keep on finding flaws?	YES	NO
76.	Do you feel you have to strengthen your own position?	YES	NO
77.	Do you turn a job into a contest?	YES	NO
78.	Do you feel confident that your way is best?	YES	NO
79.	Are you able to set challenging goals for yourself?	YES	NO
80.	Do you try to be agreeable to everyone?	YES	NO
81.	Do you feel the managerial training courses are enjoyable?	YES	NO
82.	Do you feel you have been helped to implement these new skills and knowledge in your job by persons other than the presenter of the managerial training course?	YES	NO
83.	Do you feel you and your supervisor should attend the managerial training course together?	YES	NO
84.	Did you feel any anxiety during the managerial training course?	YES	NO
85.	Are people given positive rewards?	YES	NO
86.	Are people friendly?	YES	NO
87.	Do you try to be agreeable to everyone?	YES	NO
88.	Do you try to maintain the status quo?	YES	NO
89.	Do people prefer to please those in authority?	YES	NO
90.	Does success in your job sometimes go unrewarded?	YES	NO
91.	Is there perpetual confrontation?	YES	NO
92.	Must you always take charge?	YES	NO
93.	Must you be the best at everything?	YES	NO

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| 94. | Do you keep persisting until the job is done best? | YES | NO |
| 95. | Are you able to draw up plans to reach your goals? | YES | NO |
| 96. | Are you encouraged to be creative? | YES | NO |
| 97. | Do you feel insufficient money is spent on managerial training? | YES | NO |
| 98. | Do you believe you are getting enough help in using these new skills and knowledge in your job? | YES | NO |
| 99. | Do you feel only you should have a say in attending a managerial training course? | YES | NO |
| 100. | Do you believe that attending a managerial training course could be a prerequisite for promotion? | YES | NO |
| 101. | Are people actively encouraged to help themselves? | YES | NO |
| 102. | Are you motivated to do your best? | YES | NO |
| 103. | Are people upset when their ideas are found unacceptable? | YES | NO |
| 104. | Do you find out what is expected of you and then fit in? | YES | NO |
| 105. | Are you part of a hierarchically controlled organization? | YES | NO |
| 106. | Is any failure on the job punishable? | YES | NO |
| 107. | Is being negative rewarded? | YES | NO |
| 108. | Is authority based on people's position in the hierarchy? | YES | NO |
| 109. | Is it safer to do more work than anyone else? | YES | NO |
| 110. | Are people expected to work long hours in order to keep abreast? | YES | NO |
| 111. | Are you enthusiastic about your work? | YES | NO |
| 112. | Are you self-confident? | YES | NO |

113. Do you feel you would like to attend further managerial training courses?	YES	NO
114. Do you think the contents of the managerial training course are relevant to your job?	YES	NO
115. Do you feel your supervisor had the final say in your attending a managerial training course?	YES	NO
116. Do you believe that a record is kept of your personal achievements during the managerial training course?	YES	NO
117. Is there a participative management style?	YES	NO
118. Are people given recognition?	YES	NO
119. Do people have to agree with other's ideas?	YES	NO
120. Do people have to conform?	YES	NO
121. Are all decisions eventually made by the top part of the hierarchy?	YES	NO
122. Do people avoid any possibility of being blamed for a mistake?	YES	NO
123. Do people gain status by being critical?	YES	NO
124. Must you control subordinates yet still remain responsive to the demands of superiors?	YES	NO
125. Do you make sure that you work hardest?	YES	NO
126. Must you keep on top of every situation?	YES	NO
127. Do people know how to set realistic goals?	YES	NO
128. Do people have a positive view of others?	YES	NO
129. Do you believe it is essential that you attend a managerial training course?	YES	NO
130. Do you believe you need help in tailoring the contents of the managerial training course to your specific job?	YES	NO
131. Do you feel you were given a say in attending the managerial training course?	YES	NO
132. Do you believe that attendance of a managerial training course is recorded for appraisals?	YES	NO

133. Are subordinates allowed to influence decision making?	YES	NO
134. Are people encouraged to be friendly?	YES	NO
135. Do people follow others even though they don't always agree with them?	YES	NO
136. Is it important that people don't rock the boat?	YES	NO
137. Do you prefer to keep within the rules and regulations?	YES	NO
138. Do people prefer to shift responsibility onto others?	YES	NO
139. Are people reinforced to make only safe decisions?	YES	NO
140. Must you build a power base for yourself?	YES	NO
141. Do you feel that you won't be noticed unless you out-perform others?	YES	NO
142. Do you keep details of everything you do?	YES	NO
143. Do people have more than one goal to reach concurrently?	YES	NO
144. Are you being allowed to develop and grow?	YES	NO
145. Do you believe that further managerial training courses could benefit you?	YES	NO
146. Do you believe you will be more productive after attending the managerial training course?	YES	NO
147. Do you feel your supervisor will help you to use the newly learned skills and knowledge of the managerial training course in your job?	YES	NO
148. Do you believe that your supervisor is told about your behaviour during the managerial training course?	YES	NO
149. Is the odd mistake, here and there, allowed?	YES	NO
150. Is there a sensitivity about job satisfaction?	YES	NO
151. Do you prefer to avoid arguments about a sensitive issue?	YES	NO

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| 152. Is policy important? | YES | NO |
| 153. Is it better to always get your supervisor's permission first? | YES | NO |
| 154. Is it safer to keep a low profile? | YES | NO |
| 155. Are people encouraged to oppose the ideas of others? | YES | NO |
| 156. Are people encouraged to do their best? | YES | NO |
| 157. Do you feel bad if someone else gets praised instead of you? | YES | NO |
| 158. Do you jot down your day's activities in your diary? | YES | NO |
| 159. Do your superiors approve of you setting your own goals? | YES | NO |
| 160. Are you allowed to try new and interesting activities? | YES | NO |